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ANCIENT AND MODERN PRACTICE OF MEDICINE.

WHEN the late distinguished Professor of Logic and Metaphysics in the University of Edinburgh inquired, "Has the *practice* of medicine made a single step since Hippocrates?" and, in vindication of his own belief in the negative conclusion, referred to the recorded opinions of several eminent authorities of modern times in the profession, he put a question which no thoughtful mind within the pale of medicine will be inclined to evade, and the consideration of which, after some sort, may suitably engage our attention in such a meeting as the present.

Sir William Hamilton, in penning the question referred to, had under review "An Account of the Life, Lectures, and Writings of William Cullen, M.D., the famous Professor of the Practice of Medicine in the University of Edinburgh from 1769 to 1790," by Dr. John Thomson; and having noticed, in terms of well-deserved commendation, the masterly execution of his task by the eminent author of the "Lectures on Inflammation," and accompanied him in a brief survey of the doctrines promulgated by the renowned triumvirate of the early part of the eighteenth century—to wit, Hoffmann, Stahl, and Boerhaave,—he was tempted by a mild reflection of Cullen on the practice of Stahl, which censure, indeed, was judged too indiscriminating by Dr. Thomson, to indulge in a philippic against the modern practitioners of the healing art, quoting what for his purpose appeared to be the apposite phrase of Hoffmann, "Fuge medicos et medicamenta si vis esse salvus," and that of Celsus, "Optima medicina est non uti medicinâ." The vehemence of Sir William Hamilton's denunciation is more fully explained by a note, published in 1853, to the original article, which had appeared in the *Edinburgh Review* for July, 1832, where it is shown that the dangers which are to be apprehended in the practice of medicine arise, in Sir William Hamilton's opinion, from the illiterate rashness of its practitioners, for he transfers to his pages, with very evident satisfaction, the statement of Dr. Gregory: "I think it more than possible that in fifty or a hundred years the business of physician will not be regarded, even in England, as either a learned or a liberal profession." If the medical faculty of the University of Edinburgh had in any measure justly laid itself open to the charge of hastening the decadence of learning in the profession, it will be admitted by every dispassionate inquirer that the statutes and regulations of that University relative to degrees in medicine entitle it, at the present time, to be regarded as in the van of those bodies which are striving for the honour and advance of the medical profession. It is, indeed, impossible to read the animadversions of Sir William Hamilton without coming to the conclusion that learning in the practitioners of medicine, by which he evidently understood general culture and, in particular, classical attainments, was, in his opinion, the great desideratum. Between learning of the nature referred to, and usefulness in medicine, as dependent upon ample professional qualifications, there is really nothing antagonistic. Not a few of the most distinguished men in the profession in quite recent times have been accomplished scholars. But, while this holds true, let it be distinctly understood that learning of the kind in question is not supreme: it is secondary in importance to ability in the healing art. I make bold to say that not a few physicians, with no pretension whatever to learning, have served their generation well, and have done much to recommend the profession they zealously cultivated, if they cannot be said to have adorned it. If, therefore, it were necessary to decide between the claims of medicine as a learned or so-called liberal profession and as a useful art, the preference must be awarded to the latter. Let us be thankful, however, that no such issue is before us. Medicine is a liberal profession, and will doubtless continue to be so, although the diffusion throughout its ranks of polite learning may have become diminished, a result which is to be in no small measure attributed to the very great enlargement which has taken place in all that is proper to medicine itself. Think of the rapid advances which have been made during the last thirty years in such departments of medicine as animal chemistry, physiology, pathology, and psychology, and then consider how limited is the time at the disposal of him who is expected to acquire at least a competent knowledge of these sciences for the cultivation of other subjects, however elevating and attractive. That there exists nothing hostile in the study of medicine, as now pursued, to distinction in other walks, is evident from the circumstance that members of our profession in no way favourably placed for the study have achieved distinction in scholarship. Look at the career of the late Francis Adams, toiling as a country surgeon in Aberdeenshire, and yet distinguished as the translator of Hippocrates, Aretæus, and Paulus Ægineta. Who can fail to sympathise with the feelings of that accomplished man when, in drawing his *magnum opus* to a close, he thus expressed himself: "I shall conclude this argument and my present task by quoting the memorable words in which Cicero apologises for his having spent a certain portion of his time in the cultivation of elegant literature and of philosophy, leaving the reader to apply the same in the case of Hippocrates, and, I may be permitted to add, in that of the humble editor of the present volume, who trusts he shall not be set down as an idle and unprofitable practitioner of the art because he has found leisure, amidst the turmoil and distraction of a professional life, to communicate to his countrymen the important opinions contained in the genuine remains of the Coan sage."

It has been my happy lot to meet with others who, although less distinguished, some indeed wholly unknown to fame, have cultivated, in circumstances quite as trying, their natural taste for classical and other learning; in remote districts of the country, undergoing a daily round of fatigue and anxiety, which must needs try the strength both of body and mind to the very utmost. Mine, moreover, has been the privilege to meet and have friendly intercourse with men who were ably discharging the duties of their calling, and were at the same time being leant upon by the whole community in which their lot was cast, not only as the advisers in sickness, but as persons on whose counsel and judgment all reliance was to be placed.

> "Along the cool sequester'd vale of life,
> They kept the noiseless tenor of their way."

Having formed the acquaintance of such men, I have with pride reflected on the circumstance that the individuals who were the recipients of so much confidence, and whose friendship was so highly prized, were members of the profession to which we have the happiness to belong. It is not the least of the advantages possessed by membership of this great Association, that in our annual meeting the bands of fellowship among us are apt to be greatly strengthened.

The question of Sir William Hamilton, to which reference has been made, leads us, in the first place, to a brief consideration of the practice of medicine at the period of Hippocrates.

Intimately acquainted as Sir William Hamilton was with the whole history of philosophy, he knew the close alliance which existed between philosophy and medicine in ancient times. The most renowned philosophers antecedent to, and contemporaneous with, Hippocrates, applied themselves to the study of medicine. Numerous are the references to medicine in the writings of these philosophers. Take, for example, the following passage from the "Phædrus" of Plato, in which not only is the relation referred to, but the name of Hippocrates is introduced.

"Socrates remarks: Rhetoric is like medicine.—Phædrus: How is that?—Socrates: Why, because medicine has to define the nature of the body, and rhetoric of the soul, if you would proceed not empirically but scientifically; in the one case, to impart health and strength by giving medicine and food; in the other, to implant the conviction which you require by the right use of words and principles.—Phædrus: You are probably right in that.—Socrates: And do you think that you can know the nature of the soul in-

telligently without knowing the nature of the whole?—Phædrus: Hippocrates, the Asclepiad, says that this is the only method of procedure by which the nature of the body can be understood.—Socrates: Yes, friend, and he says truly. Still, we ought not to be content with the name of Hippocrates, but to examine and see whether he has reason on his side.—Phædrus: True.—Socrates: Then consider what this is which Hippocrates says, and which right reason says about this or any other nature."*

But, while occupied with the study of medicine and engaged in speculations as to the phenomena of disease, it is in the highest degree improbable that these philosophers ever practised the healing art. It is, indeed, worthy of remark that in subsequent, although still ancient, times, the intimate connexion which had subsisted between philosophy and medicine was not regarded as favourable to the growth of the latter, and the share he had in effecting their divorcement is held by Celsus as a reason for eulogising Hippocrates. "Hujus autem, ut quidam crediderunt, discipulus Hippocrates Cous, primus quidem ex omnibus memoriâ dignis, ab studio sapientiæ disciplinam hanc separavit, vir et arte et facundiâ insignis" (*De Medicinâ*, liber primus). Medicine, however, had been cultivated after a fashion long antecedent to the birthtime of philosophy. The doctor-priests of the Grecian temples, or Asclepiadæ, had acknowledged Æsculapius as its origin. The Asclepia, or temples, were erected in many parts of Greece, were ruled by the Asclepiadæ, and used in a manner not very unlike that in which hospitals are employed in modern times. To them the sick resorted for advice and cure. In one of the most distinguished of these temples—namely, that of Cos, built on the island of the same name, one of the Sporades, a group of scattered islands, as their appellation denotes, in the Ægean Sea, off the island of Crete and west coast of Asia Minor, Hippocrates, inheriting a recognised position, acted as an Æsculapian priest. He had been born, in all probability, in the four hundred and sixtieth year before the birth of Christ. But Hippocrates had not only the advantage of the most favourable study in the Asclepion of Cos; we know, on excellent authority, that, under the direction of Herodicus of Selymbria in Thrace, he became intimately acquainted with the practice then pursued in the gymnasia, while, through the instructions of Gorgias and Democritus, the former of Leontini in Sicily, the latter of Abdera in Thrace, and himself illustrious as the originator of the doctrine of atoms, he became thoroughly versed in the literature and philosophy of the age.

The foundation of the practice of Hippocrates, with which we are now more immediately concerned, was experience; but this experience of Hippocrates was rational in character, not a mere blind or misguided empiricism. No one could be more convinced of the fallaciousness of a blind empiricism than he was, and his condemnation of it may be recognised in the earliest, the best known, and perhaps the grandest of all the Hippocratic aphorisms, "ἡ πεῖρα σφαλερή, ἡ κρίσις χαλεπή," "experimentum periculosum, judicium difficile." Hippocrates believed in the existence of a principle, a spiritual essence, the preserver of all things in nature, the restorer of whatever had become disordered. The regulation and superintendence of all the actions of the system were due to this principle, to which he gave the name of Φύσις, Nature. Thus, he was led to consider that the chief duty of the physician consisted in watching the operations of Nature, endeavouring, as might be the case, to promote or restrain these, possibly in some, but these very rare instances, to counteract them. "Our natures," he remarks, or, if not he, one of his immediate descendants, who may reasonably be supposed to be expressing the views of his master, "our natures are the physicians of our diseases." Νοῦσων φύσεις ἰητροί. It is in reference to this exposition of the function at once of nature and the physician in relation to disease that Sydenham, "the chief of English practical physicians," who in many particulars resembled the Father of Medicine, observes: "He it is whom we can never duly praise. He it is who then laid the solid and immovable foundation for the whole superstructure of medicine when he taught that 'our natures are the physicians of our diseases.'" And, again, "The great sagacity of this man had discovered that nature by herself determines diseases and is of herself sufficient in all things against all of them." The belief which Hippocrates had in this "vis conservatrix," "vis naturæ medicatrix," would, in the first place, make him, as we know from his writings he really was, a very close observer of the operations of nature. It would further render him cautious in regard to interference with these, and resolute in his determination "to have two special objects in view with regard to diseases—namely, to do good, and to do no harm." There is, however, no ground for concluding that Hippocrates was an inert or purely expectant practitioner. On the contrary, there is abundant proof in the works which bear his name that, in limiting, as Sydenham has expressed it, "the province of medical art to the support of Nature when she was enfeebled, and to the coercion of her when she was outrageous," Hippocrates found occasion to be bold and decided in his method of treatment. His employment of powerful remedies is best exhibited in the instances of diseases which, according to the humoral doctrine promulgated by him, were to be relieved by the discharge of some peccant humour. Evacuants of various kinds were used with this intention, purgatives more especially, but likewise emetics, diuretics, and sudorifics. He drew blood by means of the lancet, the scarificator, and the cupping instrument, but with what careful consideration and thoughtfulness is well shown in the treatise Περὶ Δίαιτης Ὀξέων ("On the Regimen in Acute Diseases"), in which he remarks concerning the treatment of pleuritis: "But if the pain be not removed by the fomentations, we ought not to foment for a long time, for this dries the lungs, and promotes suppuration; but if the pain point to the clavicle, or if there be heaviness in the arm, or about the breast, or above the diaphragm, one should open the inner vein at the elbow, and not hesitate to abstract a large quantity of blood, until it becomes much redder, or, instead of being pure red, it becomes livid; for both these states occur." What forcibly strikes the reader of the passage now quoted, and of those passages which immediately precede and follow it, is, as indeed Galen among the ancient, and many of the modern, commentators of Hippocrates have carefully noted, the manner in which the Father of Medicine commences with the milder means of affording relief from the pain of pleuritis, such as the employment of fomentations, the rules for the preparation and application of which, as laid down by him, are simply admirable; and only in the event of these failing to accomplish the object in view, he counsels that recourse should be had to bloodletting and the use of other powerful remedies, including cathartics. In another part of the same treatise, the following rule is laid down for the employment of bloodletting: "Bleed in the acute affections, if the disease appear strong, and the patients be in the vigour of life, and if they have strength." Surely this is a most cautious limitation of the circumstances in which the remedy is to be, in the mind of the writer, advantageously employed. In one passage, however, if not in more than one of the Hippocratic writings, there is reference made to the production of "deliquium animi," "leipothymia," or "leipopsychia," as the Greeks termed it, by bloodletting in the treatment of acute diseases. This rule, which was opposed by the ancient authorities generally, cannot be said to have been invariably acted upon by Hippocrates.

A study of the method of treatment pursued by the Father of Medicine and his immediate descendants exhibits the fact that their rules of procedure were all based on experience. He had the merit of discovering the great truth that accurate observation in medicine is the real foundation of all knowledge, and he proceeded in the true spirit of the inductive philosophy to generalise solely from the phenomena thus observed. It can never cease to afford material for wonder that through the genius of one man so much was accomplished, when we reflect on the circumstance that in the time of Hippocrates human anatomy had scarcely, if at all, been practised, that physiology was virtually unknown, and the use of remedial agents was almost entirely limited to articles of the vegetable kingdom, and these the indigenous plants of Greece and the neighbouring countries. To the subject of diet and regimen, however, Hippocrates paid the greatest attention. In the Hippocratic writings there occur terms which exactly correspond with those we so frequently employ; full, ordinary, and low diet. In the treatise Περὶ Ἀγμῶν, the following passage occurs:—"A diet slightly restricted will be sufficient in those cases in

* The Dialogues of Plato. By B. Jowett, M.A., vol. i., p. 605.

which there was no external wound at first, or when the bone does not protrude; but one should live rather sparingly until the tenth day, as being now deprived of exercise; and tender articles of food should be used, such as moderately loosen the bowels; but one should abstain altogether from flesh and wine, and then by degrees resume a more nourishing diet." And so, not to multiply quotations, in the treatise already referred to, and in *Ἀφορισμοί*, there are many interesting and instructive suggestions to be found regarding the administration of food and wine. It is sufficient, in passing, to make a brief reference to the paramount importance Hippocrates attached to the doctrine of crisis, and to the bearing which this had on the treatment of diseases. The doctrine of crisis, indeed, was an essential part of his system of humoralism, and had in consequence an intimate connexion with the method of treatment he pursued. Critical events were evacuations of different kinds, occurring chiefly by the skin, bowels, and kidneys.

With the views he entertained as to crisis, there is further intimately blended the so-called Hippocratic doctrine of critical days. Galen expressly affirms that Hippocrates was the first author who treated of these, but whether this be true or not, we know that he attached very considerable importance to the doctrine. "Fevers," he remarks, "come to a crisis on the same days as to number on which men recover and die." It was the particular attention given by Hippocrates to the tendencies manifested by diseases to recovery, or, on the other hand, to an unfavourable termination, also to the occurrence of evacuations or of crises in their course, that led to the remarkable care with which he studied the whole subject of prognosis. There is no more interesting or valuable work in the whole Hippocratic collection than the one entitled *Προγνωστικόν*, Prænotiones, Prognostics; and happily, concerning its authenticity, as the undoubtedly genuine work of the Father of Medicine himself, there has never been any question.

Again, we should be doing serious injustice to the Father of Medicine were we not to notice, and that in terms of the very highest commendation, the profound sagacity exhibited by him in the observation of the influence of external agents on men in health and on disease. This is fully exhibited in the treatise *Περὶ Ἀέρων, Ὑδάτων, Τοπῶν*, in which the operation of the atmosphere, of particular seasons, situation, and dwellings of the people, in the production of health and diseases of different kinds is discussed. Dr. Adams says of it that "it relates to a subject of commanding interest, and deserves to be carefully studied, as containing the oldest exposition which we possess of the opinions entertained by an original and enlightened mind on many important questions connected with public hygiene and political economy, two sciences which of late years have commanded a large amount of professional attention." Since this passage was written by Dr. Adams, greatly increased interest has been awakened in these subjects. I venture to affirm that the most enlightened inquirer concerning public health, be he legislator or physician, will find much to instruct him in the pages of Hippocrates.

The narration of individual cases of disease commenced with Hippocrates; he may, indeed, be said to have been the originator of the clinical study of medicine. By way of comparison between ancient and modern medicine, some clinical observations of Hippocrates may be quoted in the first place, and thereafter certain passages cited from a modern clinical lecture not unworthy of being placed alongside of the former. In the first book of the *Epidemics*, *Ἐπιδημίων, α*, it is thus written: "Philiscus, who dwelt near the wall, was laid up. On the first day, fever acute; he perspired; night very disturbed. Second day, aggravation of symptoms; in the evening, an injection procured a good stool; night quiet. On the morning of the third day, and up to noon, appeared free from pain; but in the evening, acute fever, with perspiration; thirst, tongue dry; passed black urine; night disturbed; he did not sleep at all; his mind wandered on all subjects. On the fourth day, general paroxysms; urine black; night more endurable; urine of improved colour. On the fifth day, about noon, a little blood escaped from the nostrils; urine varied in appearance with thready clouds resembling semen irregularly suspended in it. The urine did not deposit. A suppository caused passage of some feculent matter with wind. Night distressing; little sleep; talkativeness; delirium; extremities very cold, and could not be warmed; the patient voided black urine; he rested a little towards daybreak; lost speech; had a cold sweat; extremities livid. About the middle of the sixth day he died. The respiration was throughout large and rare, like that of a person who required to be reminded to breathe. The spleen was swollen, and formed a roundish tumour. The perspiration continued to be cold till the end; the paroxysms were on even days." It is to the description here given of the patient's breathing that I wish particularly to call attention. The words employed by Hippocrates are "*Τούτῳ πνεῦμα διὰ τίλεος ἀραιὸν μέγα.*" Galen's commentary on the passage justifies the rendering which has been adopted. Further, we know that the word *ἀραιός*, when used by Hippocrates, whether in reference to the respiration or the pulse, invariably signifies "infrequent," "few in number," "with intervals." Before offering a few observations on this clinical history, I shall give an extract, or rather extracts, from a case recently recorded by Dr. Laycock (*Dublin Journal of Medical Science*, 1873). "J. O'H——, aged fifty-six, labourer, admitted to hospital November 18th, 1863. No family history obtainable. Previously to admission, was employed in sinking a well, which kept him constantly wet; he has not been a temperate man, but enjoyed good health up to four days before his admission. On that day he complained of pain in the chest and some shortness of breath. He attributed this to overwork, but it was so severe as to oblige him to leave off work, and he consequently went to bed. Next day felt better, but the day after he felt very giddy, and was forced to return to bed. On the 17th, about 7 A.M., his wife found him lying half out of bed, and passing urine on the floor; when spoken to, said his left arm felt very heavy, and he could not move it, and that the left leg was the same; he also complained of headache, frontal and temporal, but not severe." Then follows a detailed and interesting statement regarding the patient's condition on admission to the Royal Infirmary. I quote the account of his breathing: "Breathing appears calm for the most part, with frequent intervals of accelerated and laborious breathing. When the act of respiration is suspended, the fact of coughing once or twice does not seem to bring it back; but, if the patient is roused and made to speak, respiration is resumed. The cessation appears to be quite regular in point of time, occupying generally about thirty seconds, and respiration then continues for about twenty-five respirations. The heart's action at such times was accelerated and tumultuous." The progress of the case is recorded as follows. "On December 1st complained of pain in the right side; friction sounds detected; coughs slightly; no expectoration; delirium occurred during the succeeding night; the following morning said he was better, and the ascending and descending respiration was not observed; friction heard in the right infra-axillary region; the right side moved but slightly in respiration, which was chiefly diaphragmatic; dulness was perceived over the right base posteriorly, where also friction and fine crepitation were heard. On the 3rd December the respiratory phenomena were less marked; but on the 4th weeping was observed in the afternoon, although the patient was cheerful about himself, and the peculiar breathing was again manifested. On the 5th heart's action was calmer; œdema of the left hand commenced. On the 9th œdema of the lower part of the left thigh; foot and lower part of leg very cold. On the 12th a fresh pulmonary attack commenced, the left pleura being now the seat. During the three following days there was considerable delirium; he was very troublesome at night, crying out and groaning. On the evening of the 16th he had more frequent paroxysms of apnœa; the cardiac action was hurried, about 130 per minute, but regular. On the 18th the symptoms were found to have subsided somewhat, but on the evening of that day dyspnœa came on, with greatly increased feebleness; pulse about 60, and irregular; respirations hurried and forcible, from 45 to 50 per minute. The pulmonary symptoms had become greatly aggravated, and the patient died about one o'clock on the morning of the 20th. Post-mortem examination was not permitted."

The case of Philiscus, as recorded by Hippocrates, is one of great interest. The occurrence of accession of fever towards the evening of the third day, freedom from fever having been noted in the morning, with supervention of several unfavourable symptoms—in particular, great thirst, dry condition of the tongue, black urine, delirium, and coldness of the extremities,—led Galen, in his Commentary, to re-

mark that the fatal issue of the disease might have been anticipated. It is, however, in respect to the peculiar character of the breathing that the case of Philiscus acquires its chief interest, and it is in this particular that a resemblance is to be found between the ancient and the modern clinical examples now quoted. The attention of Hippocrates had been arrested by the peculiar character of the breathing which existed throughout the fatal illness of Philiscus. Surely it is matter of interest and for reflection that the respiration described by Hippocrates as ἀραιὸν μέγα, "rare and large," and to which Galen has attached the meaning "like a person who forgot for a time the need of breathing, and then suddenly remembered," or "the respiration throughout, like that of a person recollecting himself, was rare and large," has attracted great attention in quite recent times. The expression used by French writers, "besoin de respirer," corresponds in some measure to the meaning which is sought to be conveyed by the Greek words. In Latin, the rendering is "Spiratio huic perpetuo rara et magna fuit." Daremberg, the learned French editor of Hippocrates, thus translates the passage: "La respiration fût constamment grande, rare comme chez quelqu'un qui ne respire que par souvenir." The relation of this peculiar character of the breathing, with which, under the name of "ascending and descending inspiration" of the eminent Dublin physician, Dr. Stokes, the profession is now familiar, to lesion of the nervous system, was of course unknown to Hippocrates, and for many subsequent ages could not be known to those who were ignorant alike of anatomy and physiology. In recent times it has been described by the late Dr. Cheyne, of Dublin. "For several days," wrote Dr. Cheyne, in 1816, in his account of a patient, aged sixty, who had fatty degeneration of the heart, with irregular and intermittent pulse, and whose death was due to apoplexy, "his breathing was irregular; it would cease for a quarter of a minute, then it would become perceptible, though very low, then by degrees it became heaving and quick, and then it would gradually cease again. This revolution in the state of his breathing occupied about a minute, during which there were about thirty acts of respiration." Subsequently Dr. Stokes connected the peculiar respiration with a weakened state of the heart, "a phenomenon to be looked for in many cases of fatty degeneration." I have never seen it, remarks the same authority, except in examples of that disease. In his description of it, Dr. Stokes observes: "It consists in the occurrence of a series of inspirations, increasing to a maximum, and then declining in force and length, until a state of apparent apnœa is established. In this condition the patient may remain for such a length of time as to make his attendants believe that he is dead, when a low inspiration, followed by one more decided, marks the commencement of a new ascending and then descending series of inspirations. This symptom, as occurring in its highest degree, I have only seen during a few weeks previous to the death of a patient. I do not know any more remarkable or characteristic phenomena than those presented in this condition, whether we view the long-continued cessation of the breathing, yet without any suffering on the part of the patient, or the maximum point of the series of inspirations, when the head is thrown back, the shoulders raised, and every muscle of inspiration thrown into the most violent action; yet all this without any râle or sign of mechanical obstruction." Dr. Stokes refers to the fact of the sighing respiration, which is closely allied to the more formidable ascending and descending respiration, being observed in persons who are labouring under certain forms of gastric and hepatic derangement, and in connexion with undeveloped gout, and likewise to the significant fact of Laennec having described a form of asthma with puerile respiration, while the illustrious French physician attributed the malady to some special modification of nervous influence.*

Dr. Little, of Dublin, in an able paper published in 1868, while allying the peculiar breathing, as Dr. Stokes had done, with organic disease of the heart, does not admit its special connexion with fatty degeneration, but believes it to accompany atheroma of the aorta, valvular lesions, and hypertrophy, as well as dilatation of the left ventricle. Dr. Little has suggested as a theory of its causation, that, in consequence of the existence of one or other of the lesions mentioned, there is an unequal action of the two ventricles. Consequently the left ventricle is unable to propel the aerated blood, and stops now and then. This blood, therefore, remains in the lungs, pulmonary veins, and left auricle, and as it has already been fully oxygenated, it no longer stimulates the respiratory centre through the vagus. Thus the venous blood which is requisite to excite the vagus branches is not supplied, consequently respiration ceases, and the breathing takes on this irregular action. By degrees the contractions of the ventricle partially free the auricle and pulmonary veins, venous blood is again sent to the lungs, which stimulates the filaments of the pneumogastric and causes respiration to begin. Dr. Laycock, in his valuable contribution to the pathology of the ascending and descending respiration, or, as he terms it, "recurrent brief apnœa," from which I have already quoted, while offering objections to the completeness of the explanation according to Dr. Little's ingenious theory, does not hesitate to concur in the opinion that the vagus system is involved.

It is worthy of remark that, in the case of Philiscus detailed by Hippocrates, sleeplessness was a notable feature, and although the febrile condition under which the patient laboured may be the explanation of this symptom, it is at least as reasonable to suppose that the neurosis of the vagus on which the peculiarity of his breathing depended was its cause.

Laennec, the illustrious French physician, the modern discoverer of auscultation, he to whom we are indebted for the introduction of auscultation and for the great light which his discovery shed on the diagnosis and treatment of diseases of the chest, has rendered due credit to Hippocrates. To the Father of Medicine, indeed, and to Aretæus, among the ancients, Laennec confesses that he was alone indebted for any information on the subject which he has so signally made his own. He expressly states that Hippocrates practised immediate auscultation. "Hippocrate avait tenté l'auscultation immédiate"; and in proof of his having made trial of this means of diagnosis, he refers to the well-known passage in the treatise Περὶ Νουσῶν, τὸ Δεύτερον, "De Morbis," Liber Secundus, a work which there is good reason for believing, although not composed by Hippocrates himself, was written either by one or more of his contemporaries or by some of his immediate descendants in the school of Cos, in which it is made clear that Hippocrates fell into error in supposing his ability to distinguish between the presence of water and of pus in the chest by the peculiar sound heard on applying the ear. It is in the same chapter, and in close relation to the same subject, that Laennec makes the remarkable statement—a statement which cannot be read without feelings of admiration for the candour and modesty of that distinguished man—that he had read the passage in Hippocrates many years before the commencement of certain experiments in physics, which suggested to him the idea of mediate auscultation, but he never entertained the idea of repeating the experiment of Hippocrates; it passed entirely into forgetfulness; he simply regarded it as one of the errors into which that great man had fallen. But the passage reverted to his mind when he commenced his researches, and he felt surprised that its consideration had not proved suggestive to some readers. The error made by Hippocrates, Laennec further remarks, might have led him to the discovery of many valuable truths. He concludes a remarkable passage in the following words:—"But Hippocrates stopped with an incorrect observation, and his successors overlooked its import. This, at first sight, may appear surprising; nevertheless, nothing is more common. No man is permitted to embrace all the relations and consequences of the most simple fact; and the secrets of nature are more frequently disclosed by accidental circumstances than they are wrested by scientific efforts" ("De l'Auscultation Médiate," Première Partie, Chapitre iii). Under the designation of Hippocratic succussion, we possess, as is well known, a means of physical exploration of the chest which was practised by the Father of Medicine. In the same treatise as that already referred to, the method of procedure in the use of this means is laid

* Cependant le malade étouffe; et, comme nous venons de le dire, il aurait besoin d'une respiration plus étendue que celle que permit son organisation: ou, en d'autres termes, la expiration est très partaite, le besoin seul de respirer est augmenté. Ce n'est pas dans le poumon qu'il faut chercher la cause de la maladie; et lors même qu'adoptant en entier la théorie chimique de la respiration, on voudrait supposer qu'un besoin extraordinaire d'oxygenation du sang est la cause de la dyspnée, il faudrait encore remonter plus haut et reconnaître que le mal est dans l'innervation même.

down. It is directed that after the patient has been carefully washed with warm water, he is to be placed in a firm seat, and his hands held by an assistant; the physician, meantime, taking him by the shoulders, shakes him, and attentively listens in order to determine on which side of the chest a sound is occasioned. Further, the rules for the treatment of empyema by operation are given with precision: it is directed that recourse is not to be had to paracentesis before the fifteenth day from the commencement of the effusion; where pain is chiefly felt and swelling is most conspicuous, the opening is to be made, while a preliminary incision through the integuments precedes the penetration of the pleura effected by a sharper and more pointed instrument, protected by a piece of cloth. In some instances, it is mentioned, the perforation of the thoracic parietes was made, not through an intercostal space but through a rib, a plan revived in recent times by M. Reybard. When a sufficient quantity of pus has been permitted to flow, the wound is to be closed by means of a portion of linen cloth attached to a thread. Daily a similar quantity of pus is to be evacuated. On the tenth day, when the whole of the collection has been allowed to escape, a mixture of tepid oil and wine is to be injected through the opening, for the purpose of cleansing the lung. This part of the operation is to be practised twice daily, the injection of the morning being withdrawn and replaced by a fresh quantity in the evening, and so on. At length, when the purulent fluid has become clear and thin, a metallic sound is to be introduced, the size of which is to be gradually lessened as the fluid itself diminishes; thus, the wound is permitted to cicatrise.

The interest attached to the description now quoted is heightened by a consideration of certain shrewd observations bearing on the same subject, and which occur, not in the same treatise alone, but in other of the Hippocratic works, notably in the book of "Aphorisms." An empyema on the left side, the author remarks, is less dangerous than on the right. When the pus was clear, and studded more or less with sanguinolent threads, that appearance indicated the probability of a satisfactory recovery; but, on the other hand, if, on the first day of its removal, the fluid possessed a colour like the yelk of egg, while on the succeeding day it was thick, having a pale-green hue, and emiting a fetid odour, it was likely that the sufferer would not recover, but shortly die. Again, the sufferers from empyema and dropsies treated by incision or by the cautery, certainly perish if the pus or water be suddenly evacuated. Everyone acquainted with the history of paracentesis thoracis knows that it dates from the period of the Father of Medicine. The dogmatic statements which are to be found in the Hippocratic writings may not all be accepted without question in the present day, but it is remarkable how much truth there is in several of these. One of the highest living authorities on diseases of the chest, Dr. Walshe, commends the precept of Hippocrates, that paracentesis should not be performed before the fifteenth day of effusion, unless the accumulation of fluid be so great as *per se* to threaten life; while he questions the accuracy of the observation made in the ancient time, and adhered to pretty closely in subsequent ages, that success is less likely to follow operations where the fluid has been from the first purulent in character than where sero-albuminous ("Diseases of the Lungs," 4th edition, page 218).

The modern history of thoracentesis is very interesting. Since the writings of Trousseau in its recommendation, and the still more powerful example of our transatlantic brethren, chiefly Dr. Bowditch, the remedy has become one commonly resorted to. In the article Pleurisy, contributed to the third volume of Dr. Reynolds's System of Medicine by a physician whose premature death the profession had recently occasion to deplore, will be found an interesting account of what Dr. Austie called a new era in the treatment of pleurisy. The new era is, however, signalised rather by the discovery and introduction of such new instruments as the suction-instrument of Dr. Wyman, so efficient in the hands of Dr. Bowditch, and the aspirator of M. Dieulafoy, than by any novel suggestion regarding the treatment of the disease. If, as is not unlikely, we have recently attained to something like perfection in the diagnosis and treatment of pleurisy, a dispassionate review of the history of the disease in ancient and modern times will justify the application of the dictum of Seneca, "Multum egerunt qui ante nos fuerunt sed non peregerunt."

It would be very easy to multiply references to important and suggestive passages in the Hippocratic writings tending to establish yet more fully the truth of the statement that the Father of Medicine was enabled, by the exercise chiefly of his most remarkable powers of observation, to acquire a really wonderful amount of accurate information regarding the causes and progress of diseases, as well as the influence exerted by various remedies over them. Enough has, however, been stated to justify Sir William Hamilton in exalting the reputation and praise of Hippocrates. Was Sir William entitled to depreciate the medical practitioners of his own time, which he surely did when exclaiming, "Has the practice of medicine made a single step since Hippocrates?" For centuries after the Hippocratic epoch, it may truly be said that little or no advance in medicine was effected. Many learned and ingenious men no doubt did appear in the ranks of the profession, and by them the position which had been achieved for medicine by Hippocrates was, at all events, maintained. In ancient times, by far the most renowned of these was Galen, who, embracing warmly the views of Hippocrates, was the first formally to expound and then systematically to formulate the doctrine of humoralism or humorism. It might be a sufficient answer to the query of Sir William Hamilton to signalise the discovery in modern days of vaccination and the introduction of sulphuric ether and chloroform as anæsthetics—the last mentioned, as the author of "Rab and his Friends" says, "one of God's best gifts to his suffering children." These were unknown to Hippocrates, and surely our possession of them indicates at least one step in advance. But we are able to point to the abandonment of many remedies altogether worthless which were used in ancient times, and to the introduction, as well as much more satisfactory employment, of others; while, owing to the remarkable and altogether indisputable progress which has been made in the prosecution, first of all, of the study of anatomy, then of physiology, and subsequently of pathology, we are justly entitled to conclude that the more advanced our knowledge of the minute structure of the body becomes, the more extensive our acquaintance with the function and uses of its several parts, and the more refined our understanding of the various morbid processes by which these are altered and destroyed, so much the more thorough and reliable will be our application and adaptation of the means of cure to the treatment of diseases. Any scientific practice of medicine before the physician had been able to acquaint himself with human anatomy was not to be expected; and it is truly marvellous that Hippocrates, Aretæus, Galen, and the Arabian physicians, notably Rhazes, were able to achieve so much, and to hand down to posterity a body of well-observed facts and careful deductions from these facts, wearing so much the aspect of science.

Medicine can, however, be said to have started on a scientific basis when Mundinus, early in the fourteenth century, applied himself with diligence to the dissection of the human body, and published a treatise on anatomy, "Anatomi Omnium Humani Corporis Interiorum Membrorum," which till the middle of the sixteenth century was the recognised textbook of the schools. The statutes of the University of Padua prescribed that all anatomical lecturers were to adhere to the literal text of the Bologna professor. Mundinus died in 1326,* universally respected; and no advances in anatomical knowledge were made after his time till Berenger of Carpi published, in 1521, a commentary upon Mundinus. There succeeded Berenger, Vido Vidius, Jacob Sylvius, and the renowned Flemish anatomist Andreas Vesalius. Of the last named, Hallam remarks that "if he was not quite to anatomy what Copernicus was to astronomy, he has yet been said, a little hyperbolically, to have discovered a new world" (Literary History, vol. i., p. 467). He was the first anatomist who ventured to emancipate himself, and that thoroughly, from the trammels of Galen, who, up to that time, had been regarded with an altogether blind veneration. Fallopius and Eustachius—two well-known names, names not to be forgotten by anyone at all acquainted with anatomy—were the contemporaries, although younger, of Vesalius; and of the same period, or shortly subsequent,

* Mundinus, sagt John Adelphus in der von ihm besorgten Strassburger Ausgabe vom Jahre 1513, "quem omnis studentium universitas colit ac venerat ut deum."—Haeser, Lehrbuch der Geschichte der Medicin.

were Realdus Columbus, Arantius, and Fabricius ab Aquapendente, the discoverer of the valves in the veins and the instructor of our own immortal Harvey. The splendid discovery of the circulation of the blood was followed by that of the absorbent system, in which Asellius (a professor at Pavia), Rudbeck (a professor at Upsala), and Bartholini (a Dane) were chiefly concerned; while to Pecquet, a professor at Montpellier, belongs the credit of describing the thoracic duct and its uses. Other important anatomical discoveries, and discoveries also in physiology, were being made simultaneously, or shortly thereafter, in connexion with which the names of Malpighi, Glisson, Wharton, Highmore, Richard Lower, Leuwenhoeck, Ruysch, Valsalva, and many others start up. The most eminent of the pupils of Valsalva was the distinguished Morgagni, who, following the plan pursued by Bonnet in his "Sepulchretum Anatomicum," first published at Geneva, the place of his birth, in 1679, described by Haller as "immortale opus," became himself professor in the University of Padua, and was the founder of pathological anatomy ("Der Begrunder der Neurer Pathologischen Anatomie," Haeser, seite 654). His works "Adversaria Anatomica," and still more his celebrated treatise "De Sedibus et Causis Morborum per Anatomiam Indagatis," immensely advanced his favourite science.

While chemistry, about the same time, was advancing towards the dignity of a science, chiefly through the genius of our distinguished countryman, the Honourable Robert Boyle, there arose the sect of the so-called chemical physicians. Of this sect, the earliest was François Deleboe Sylvius ("Der berühm tesle Vertreter der Iatrochemischen Schule." Haeser, seite 571), who was born at Hanau in Flanders, in 1614, and, after a time, became professor of the practice of medicine at Leyden. The chemical theory of medicine had, however, passed from Paracelsus, who was born towards the close of the fifteenth century, through Van Helmont, by more than eighty years his junior, to Sylvius. The leading principles of the chemiatric physicians was that diseases owed their origin to derangement in a process of fermentation, which was constantly at work in the human body. While most of the maladies which were produced in this way arose from excess of acid, some were regarded as of alkaline origin. One eminent English physician embraced the doctrine of Sylvius. Thomas Willis was born in 1621, and in 1659 published his celebrated treatise entitled "Diatribæ duæ Medico-Philosophicæ; quarum prior agit de Fermentatione, altera de Febribus." The object of this work was to prove that in every organ of the body there existed its own special fermentation, and that diseases of every kind resulted from the disturbance of these fermentative processes. Willis was one of the earliest members of the Royal Society, and left behind him the character of an orthodox, pious, and charitable physician.* It is recorded of Dr. Willis that, being consulted regarding the delicate condition of the children of the Duke of York, afterwards James II., he spoke his mind freely, and thereby gave great offence. Bishop Burnet has related that "Willis, the great physician, being called to consult for one of his (the Duke of York's) sons, gave his opinion in the words, '*mala stamina vitæ*,' which gave such offence that he was never called for afterwards." The reputation of Willis, unquestionably a very able man, has been obscured by that of another English physician, his junior by only three years. The physician in question was Thomas Sydenham, "whose character," as Dr. John Brown felicitously remarks in that delightful essay, "Locke and Sydenham," "is as beautiful and as genuinely English as his name." He was born in Winford Eagle, in Dorsetshire, in 1624. A parallel has been drawn between Hippocrates and Sydenham by more than one modern writer. "Wiederherstellung des Hippokratismus durch Thomas Sydenham," is the title of a chapter by Haeser, the erudite German historian of medicine, and a very instructive one it is, on the life and writings of the English physician. He has frequently been called the English Hippocrates, and, in truth, the appellation is deserved; for, like the illustrious Greek physician, the great aim he set before him was the cure of disease, and although possessing a mind which delighted in speculative inquiry, he never permitted the theories he formed and ably defended to interfere with his treatment. That was based on a rational empiricism, such as we have seen in the instance of Hippocrates; he carefully watched the operation of the remedies he employed, and from these he drew the indications for further guidance. Sydenham was humoral in his pathology, and he further agreed with Hippocrates in the doctrine of crisis, and the subsidiary view as to action and crasis. We find him frequently referring to the Father of Medicine—as, for example, when he inquires what is gout? It is a provision of Nature to purify the blood of old men, and to purge the deep parts of the body; such at least is the language of Hippocrates. The same may be said of all other diseases, fully formed; and "that practice and that alone will do good which elicits the indications of cure out of the phenomena of the disease itself. This made Hippocrates divine." It was from Sydenham that the school of empirical physicians in England sprang—a term to be used, as Hallam has expressed it, "in a good sense," as denoting the regard its disciples had to observation and experience, or to the Baconian principles of philosophy.

Another school of medicine had arisen in Italy through the instrumentality of Giovanni Alfonso Borelli, a profound mathematician, who endeavoured to explain the operation of the various functions of the body on mechanical principles. His views and principles were, through the excessive zeal of his pupils, carried beyond their legitimate length. Of these, Lorenzo Bellini, of Florence and Pisa, was the chief. There were other eminent adherents of the iatro-mathematical school in Italy; while Pitcairne, Friend, and Mead, in their time, were in this country attached to it, and it secured the sympathies of the illustrious nosologist, François Boissier de Sauvages in France, in the eighteenth century.

To the chemiatric and iatro-mathematical school there succeeded a third, of which Van Helmont was the founder. Embracing the views of the former to a certain extent, he made this important addition, that all the changes occurring in the body, whether arising spontaneously or produced by remedies, are determined by a specific agent inherent in the living system, to which he gave the name of Archeus. This archeus explained, in Van Helmont's opinion, all physiological actions, and accounted for the maintenance of health as well as the occurrence of disease. Founding on the views promulgated by Van Helmont, although widely differing from him, came the earliest of the three distinguished men to whom a brief reference was made at the commencement of this address. Rejecting the doctrines of the chemical and mathematical physicians, Stahl concentrated attention on what he denominated vital actions. He, too, referred these actions to a dominating principle; and the Anima of Stahl—so he named it—resembles, in some measure at least, the Archeus of Van Helmont. To Stahl belongs the great merit of having pointed out that, contrary to the prevalent opinions of the schools, the operations of the animal economy cannot be explained by either chemical or mechanical laws, that there exists something over and above these, and that something is of the nature of vital action. The anima of Stahl, however, was a hypothetical principle, and he signally failed to gain for his theory any general support. Hoffmann, his distinguished colleague in the University of Halle, and his rival, conferred a lasting benefit on science by pointing out that the actions which were ascribed by Stahl to the government of his "anima" were in reality determined by nervous influence. "It was reserved for Hoffmann," says Dr. John Thomson, "to take a comprehensive view of the nervous system, not only as the organ of sense and motion, but also as the common centre by which all the different parts of the animal economy are connected together, and through which they mutually influence each other." Facts, and many of these most important in their nature, regarding the nervous system, had been recorded before the time of Hoffmann. The renowned professors in the early Alexandrian school, Herophilus, and Erasistratus, and Galen, with others among the ancients, Willis, Vieussens, Mayow, Baglivi, and Pacchioni, much nearer his own day, had laid the foundation for the reasoning of Hoffmann, but, as Cullen has observed, "he was the first who gave any tolerably simple and clear system on the subject, or pointed out any extensive application of it to the explanation of diseases." There is little need for reminding you of the triumphant discoveries in the nervous system which have been made since the time of Hoffmann—such discoveries as have rendered the names of Charles Bell and

* The Roll of the Royal College of Physicians of London. By William Munk, M.D., vol. i., p. 524.

Marshall Hall in particular, but many others in lesser degree, famous. In no department of pathological inquiry is there at the present time exhibited a greater amount of zeal, or are important facts being more frequently brought to light, than in that pertaining to the nervous system. How signal our advance in treatment also, as determined by that which can alone with any certainty determine treatment: a sound diagnosis! We can distinguish between functional and organic diseases of the brain, spinal cord, and nerves, and use our remedies in a way of which not only the ancient physicians, but many among the moderns, could not have dreamt.

The names of Stahl and Hoffmann, the German professors in Halle, of whom a few words have been said, are inseparably linked with that of the illustrious Dutch professor in the University of Leyden, Hermann Boerhaave. The aim of Boerhaave was essentially eclectic; he culled from the writings of his predecessors all that was valuable, and with these and the results of his own extended observation endeavoured to erect a system of medicine. His system was faulty in ascribing too little importance to the influence exerted by the brain and nervous system generally over the animal functions. The pathology of Boerhaave was as defective as his physiology; his explanations of morbid phenomena were more applicable to the body considered as an inert hydraulic machine, than as an organised living and sentient system. Intellectually and morally distinguished, few greater men than Boerhaave have adorned our profession in any age or country. After his decease, his reputation, which as a living teacher had been of the most exalted description, rather increased than declined. This result was due in great measure to the publication of commentaries on his works by two of his most distinguished pupils, Haller and Van Swieten. The former of these is justly considered as the father of modern physiology. The magnificent researches of Haller regarding development, growth of bone, and the circulation, deserve the praise and gratitude of posterity not more than the impulse of his ardent spirit and example in laborious inquiry, by which the zeal of his associates and successors was kindled. Of Haller's powerful opponent in the controversy regarding irritability and sensibility—Dr. Whytt—I can only make mention. Contemporaneously with Haller, and conferring benefits on the practice of medicine resembling those which Haller rendered to physiology, was William Cullen. A very erroneous impression of this great Scotch teacher has been entertained by many, more particularly, however, by foreigners. By such, Cullen has been called a purely speculative physician. The condemnation of this opinion is readily supplied by his own words. "There is nothing," he observes, "I desire so much as that every disease we treat here should be a matter of experience to you; so that you must not be surprised that I use only one remedy when I might employ two or three; for in using a multiplicity of remedies, when a cure does succeed, it is not easy to perceive which is the most effectual. But I wish that you may always have some opportunity of judging with regard to their proper effects." Again, he says: "Every wise physician is a dogmatist; but a dogmatical physician is one of the most absurd animals that lives. We say he is a dogmatist in physic who employs his reason, and, from some acquaintance with the nature of the human body, thinks he can throw some light upon diseases, and ascertain the proper methods of cure; and I have known none who were not dogmatists, except those who seemed to be incapable of reasoning, or who were too lazy for it. On the other hand, I call him a dogmatical physician who is very ready to assume opinions, to be prejudiced in favour of them, and to retain and assert very tenaciously, and with too much confidence, the opinions or prejudices which he has already taken up in common life, as in the study of the sciences. Now, I profess to be a dogmatist, but I should be sorry if any person thought me dogmatical, for there are but few theoretical opinions which I have received or offered to communicate with regard to disease, concerning which I am not ready to doubt, and to admit grounds for doubting, as soon as they are offered to me. I know there are no universal rules in the practice of physic, but there are general rules, which all admit of, with more or fewer exceptions, in theory and practice." The foundation of the practice of physic was expressly stated by Cullen to lie in fact and experience. "All our knowledge of Nature consists," he says, "in experience."

To Cullen we are largely indebted for the introduction into general use by medical men in this country of such remedies as the acid tartrate of potash, tartar emetic, hyoscyamus, and James's powder, or the pulvis antimonialis. Tartar emetic Cullen largely employed as an antiphlogistic, sometimes after bloodletting, and sometimes in place of that remedy. He had noticed something of the contra-stimulant action of antimony in the form of tartar emetic, described by Dr. Marryatt, of Bristol, in 1790, and afterwards so strongly insisted upon by Rasori, a professor in Pavia, and by others. A successor of Cullen, one of the most distinguished physicians in recent times, as he certainly was also one of the most benevolent of men—the revered Dr. Alison,—who occupied the chair which you, Sir, now so worthily fill, when this Association held its former meeting in Edinburgh—he, whom Dr. Stokes has recently described as "the best man I ever knew," and in so alluding to Dr. Alison, may be said to have turned many hearts towards himself; for what student knew Dr. Alison did not venerate him?—and who can ever cease to cherish his memory?—when indicating the way by which, in his opinion, the further improvement in the art of medicine was likely to be effected, signalised the two following lines of inquiry: first, in the discovery of specifics which may counteract the different diseased actions of which the body is susceptible, as effectually as the chinchona counteracts the intermittent fever, citric acid the scurvy, or vaccination the small-pox; and, second, in the investigation of causes of disease, whether external or internal—i. e., of the conditions under which either the vital action of the solids or the vital properties of the fluids of the body may become liable to deviation from their natural state. It will be readily admitted by all candid inquirers that, under the latter head, very signal advances have been made during the last half-century. Look, for example, at the etiological investigations regarding continued fevers, and the bearing of these upon treatment, with which the names of Jenner, Stewart, Bartlett, Murchison, and Buchanan are so intimately connected. Again, consider the great advances in knowledge of parasitic diseases—the entozoa more particularly,—and their appropriate treatment, for which we are largely indebted to Küchenmeister, von Siebold, Davaine, and Cobbold. Nothing more interesting or more remarkable in the line of therapeutics has recently appeared than the wonderfully successful treatment of hydatids of the lung by the internal administration of turpentine in the hands of Dr. Bird, of Melbourne, Australia.* This is a medicine in estimation of which, were time at my disposal, I could say much, having had occasion to watch its influence very closely when administered in cases of pulmonary gangrene and bronchial affections attended by copious expectoration of fetid pus. In these diseases I regard turpentine as an invaluable remedy.

Of specifics we still possess but few; while the desire to increase their number is not only legitimate, but is likely sooner or later to be gratified. Of the class of specifics no remedy better deserves the name than quinine. The potent action of quinine in intermittent fevers thoroughly justifies the application to it of the term specific; and it is to be noted that the curative action in question is to be seen not only in febrile disorders of the intermittent type, but in neuralgias which manifest a similar character. Many ingenious theories regarding the *modus operandi* of chinchona or quinine in these diseases have been advanced; but, up to the present time, we are compelled to admit that we are entirely ignorant respecting the method of action of a medicine in whose power we justly place the very highest confidence. The remarkable effects of quinine in reducing the temperature in pyrexia, and the still more remarkable influence of cold in the same way in hyperpyrexia, of which Dr. Wilson Fox has given some happy illustrations, are noteworthy facts in the recent history of therapeutics.

A remedy of marvellous power and usefulness, the virtues of which we are still only learning, is the iodide of potassium. This medicine was prepared soon after the discovery of iodine by Courtois in 1812, and has been chiefly employed as a deobstruent, alterative, and diuretic. I am

* Dr. Bird had formerly used bromide of potassium, twenty grains, with one fluid drachm of tincture of kamela in infusion of serpentary, three times a day regularly. (On Hydatids of the Lung. Melbourne, 1874.) I am, however, assured by a recovered patient that, in the treatment of pulmonary hydatids, Dr. Bird now places great reliance on turpentine administered internally.

satisfied that the diuretic properties of iodide of potassium deserve to be more widely recognised than is generally the case. Its specific action is seen in syphilitic periostitis, for truly the rapidity and completeness with which pain and swelling decline and disappear in instances of enlargements over the tibiæ and other bones in cases of secondary syphilis are not less remarkable than the readiness with which an attack of intermittent fever or neuralgia yields to quinine. The late Dr. Todd, of London, remarked: "If there is anything in addition to quinine which deserves the name of a specific, it is the iodide of potassium in syphilitic periostitis." Another remarkable action of this medicine is in aortic aneurism. Iodide of potassium, administered for the most part in tolerably large doses, in this terrible disease exerts a wonderful influence, not only in relieving the neuralgic pains, which are frequently so harassing, but in subduing the local pressure occasioned by encroachments of the aneurism, and in leading, apparently, to firm coagulation within the sac.

It is in the treatment of thoracic aneurism by iodide of potassium that physicians have learned the very remarkable tolerance of the drug manifested by sufferers from that disease. No reasonable suggestion has hitherto been offered regarding the *modus operandi* of iodide of potassium in aneurism. The influence it exerts on the progress of aneurism appears to have been discovered not only empirically, but by the merest hazard, writes Dr. Walshe; "in this point of view, the story of all our really valuable medicines is simply repeated" ("Diseases of the Heart," fourth edition, page 512). The names of Bouillaud, Nélaton, and Chuckerbutty are specially connected with the early employment of the iodide of potassium in the treatment of aneurism; while the profession is largely indebted to Dr. G. W. Balfour, of Edinburgh, for his patient investigation into the subject. (*Edinburgh Medical Journal*, 1868.)

Twenty years ago little was known regarding the virtues of bromide of potassium. If any standard work on the materia medica of that date be consulted, it will merely be found recorded of this salt that it is diuretic and cathartic, and, like the preparations of iodine, a powerful deobstruent and alterative. Its dose, moreover, is stated, in such works, at from three to twelve grains thrice daily. Since then, and more particularly within the last few years, bromide of potassium has rapidly advanced in professional estimation; and, at the present time, it may with confidence be affirmed that there are very few medicines which are more largely employed, and the use of which is attended by more signal benefits. As a calmative and hypnotic, bromide of potassium is largely confided in; but its specific operation in epilepsy is of the most striking description. "It is to be demonstrated, in my opinion," writes Dr. Russell Reynolds, "that there is something specific in the action of bromide of potassium in epilepsy." And the same author observes: "Bromide of potassium is the one medicine which has, so far as I know, proved of real service in the treatment of epilepsy." My own experience of the use of bromide of potassium in epilepsy has been of the most encouraging description. I have repeatedly witnessed cures, in the strictest sense, result from its employment. Let me briefly refer to one such.

S. A——, a bookbinder, aged fifty, had for twenty years been subject to severe fits, occurring irregularly by night and by day, often attended by biting of the tongue. The usual interval between the fits had been a fortnight, and on no occasion had a longer period than six weeks elapsed. In January, 1870, this patient, whose mental capacity had at that time become considerably enfeebled, so much so as to make it necessary for him to give up his business, began the bromide of potassium, and continued it for eighteen months without any pause. The dose never exceeded twenty grains thrice daily. The result of this treatment was an entire cessation of the epilepsy; and there has been no recurrence of the disease. His mental vigour has returned. He long ago resumed his occupation, and has since been busily engaged in it without any interruption.

I could multiply instances of this kind; and so, I believe, could many practitioners who, in the treatment of epilepsy with bromide of potassium, have been mindful to adhere to the rule upon which Dr. Reynolds insists, that the remedy "should not be discontinued in the treatment of a case of epilepsy because of its apparent failure, but that the dose should be gradually increased, and the exhibition of the drug most patiently carried on for a period of many months, or even years." Epilepsy is a disease which specially attracted the attention of the ancient physicians. It was termed *νόσος ἱερὰς*, the sacred disease, by the Greeks; and Aretæus expressly mentions why the appellation "sacred" was given to epilepsy: "for more reasons than one," he remarks—"from the greatness of the evil, for the word *ἱερὸς* also means great, or because the cure of it is not human but divine, or from the notion that the disease occurred from the entrance of a demon into the man." Plato, in the "Timæus," ascribes the use of the term "sacred" to the circumstance of the head or brain being the part of the body affected in epilepsy. "When the phlegm is mingled," he says, "with black bile, and dispersed about the courses of the head, which are the divinest parts of us, and disturbs them in sleep, the attack is not so severe; but when assailing those who are awake, it is hard to be got rid of; and, being an affection of a sacred part, is most justly called sacred." Hippocrates combated the notion entertained by his countrymen that epilepsy was peculiarly a sacred disease, one specially inflicted by the gods. In the treatise Περὶ Ἱερῆς Νούσου, he emphatically points out that the incomprehensible nature of the malady is no reason for concluding it to be divine, inasmuch as many other diseases, and notably the paroxysms of intermittent fevers, are just as much above the reach of the human understanding. He believes that epilepsy, like other diseases, results from natural causes. The reader of the remarks on epilepsy in the pages of Hippocrates and Aretæus cannot fail to have his opinion of these great men enhanced; but he also cannot fail to reach the conclusion that the moderns, understanding the nature of convulsive diseases, their connexion with altered conditions of the blood—with, for example, anæmia and uræmia,—and their dependence at one time on central, at another on peripheral irritation of the nervous system, are infinitely better prepared for their treatment than they were; and this unquestionably holds true of epilepsy.

The use of the remedies we have been briefly reviewing has, in the first instance, been adopted either by mere accident or empirically; nor have we, on this account, any cause for feeling regret. We do not know in what the preservative power of vaccination consists; and yet millions of lives have already been saved by this precaution (Œsterlen). A recent and very interesting example of the way in which therapeutical knowledge may be advanced is afforded by what has occurred in the Andaman islands. Dr. Dougall, a distinguished graduate of the University of Edinburgh, has apparently discovered that leprosy sores and other ailments attendant upon that disease can be cured by the aid of the Gurjon tree, which is very common in these islands. Take another disease known to the ancients, although its pathology, still to a considerable extent obscure, has been carefully investigated only in recent times—I mean diabetes; and regarding it, we may compare the treatment pursued by Aretæus, for example, and that which we now employ, with the result of feeling thoroughly assured that many steps have been taken in the right direction, and with signal advantage to suffering humanity, since the writings of the distinguished Cappadocian physician. I do not think the opinion unfounded that, owing to the recent advances in the knowledge of tubercular diseases, etiologically and pathologically, we may look forward with confidence to a decided gain in their efficient treatment; but even now may we not be said to possess in cod-liver oil a very potent means of modifying the progress of pulmonary tuberculosis? In the treatment of this disease and of other allied constitutional disorders, cod-liver oil was first employed in the Manchester Infirmary, chiefly by the elder Bardsley, after the commencement of the present century. Previously to that time, however, an oil obtained by ebullition with water from the fresh livers of several fishes, the ling and skate as well as the cod, had long been a domestic panacea in strumous affections and chronic rheumatism. Subsequently to its use in the Manchester Hospital, cod-liver oil was largely used in Germany; but, falling into disuse in this country, its restoration to professional and public favour has followed the publication of Dr. Hughes Bennett's recommendation of its virtues, in his excellent treatise on that subject. Sir Thomas Watson has very happily expressed the characteristic effect of the remedy in phthisis, when he says: "It is antagonistic to a much greater extent than any other drug of the consuming power of the disease." There are probably few

medical men who have seen much of this sad malady who would hesitate to concur in the opinion of a very high authority—Dr. Williams—that cod-liver oil is more beneficial in the treatment of pulmonary consumption than any other agent, medicinal, dietetic, or regiminal, that has yet been employed. We may justly congratulate ourselves on the possession of cod-liver oil, but it becomes us to remember that the ancient physicians used oil inunction in phthisis. This is expressly stated by Aretæus, and he, as well as Hippocrates, lauds the use of milk in the same disease, preferring it to all other kinds of food. "For," says the former, "milk is pleasant to take, is easy to drink, gives solid nourishment, and is more familiar than any other food from childhood. In colour it is pleasant to see, as a medicine it seems to lubricate the windpipe, to clean as with a feather the bronchi, and to bring off phlegm, improve the breathing, and facilitate the discharge downwards. To ulcers it is a sweet medicine, and milder than anything else. If one will, then, only drink plenty of milk, he will not require anything else. For it is a great thing that in a disease milk should serve both for medicine and nourishment." In fevers Hippocrates did not allow milk, more particularly in such fevers as were attended by bilious discharges from the bowels. The modern practice is not in this very important particular in agreement with the ancient, the highest authorities, as, for example, Gairdner, Murchison, and Parkes—the last-mentioned on weighty theoretical grounds—considering milk the best food in fevers.

We have been alluding to the manner in which the practice of medicine has been advanced, and may doubtless be still further advanced, by the simple method of observation and experience. It is true that we cannot entirely depend upon empirical laws. We cannot, for example, feel assured that quinine will certainly cure an attack of intermittent fever, mercury syphilis, or, for that matter, that a dose or doses of any given medicine will exert their thoroughly ascertained physiological or therapeutic action; still such laws are of the highest value, and we cannot help employing them.

The recent progress of chemistry, physiology, and pathology, has naturally led to the establishment of an advanced school of therapeutics, from whose labours signal benefits may not only be anticipated for medicine, but have already been conferred upon it. To Dr. Lauder Brunton, for example, belongs the great merit of distinguishing accurately the therapeutic action of the nitrite of amyl from its physiological properties, and thereby of adding a useful remedy to our armamentarium. And so, also, to Dr. Fraser we are indebted for the elaborate investigations regarding the Calabar bean, which have resulted in a demonstration of its therapeutic value. Care must, however, be taken that the results of scientific inquiry and those of patient, oftentimes laborious, observation in the field of practical medicine running counter, do not interfere with the ultimate grand object of our profession—the healing of the sick.

We are not entitled to withhold remedies because we do not understand their exact nature, nor the minute changes they produce in the animal economy. Œsterlen has well expressed the attitude which, as practitioners of medicine, we are called upon to assume. "The patient requires our aid, and we must decide for or against the employment of a particular medicine, and upon the manner in which to employ it. If we possess sufficient experience, knowledge of the subject, and practical tact, we shall no doubt be able to do all for that patient which circumstances permit."

Let each one of us be fully persuaded in his own mind. While deeply interested in, and much instructed by, the experiments performed by a Committee of this Association, regarding the use of mercury for example, I remain as thoroughly convinced as ever that the much-abused drug in question exerts a powerful action on the function of the liver, and is to be trusted as a most efficient remedy in controlling not a few of its disorders.

I regard cold as a powerful antiphlogistic, and its external application, already briefly referred to, as a remedy of unquestionable value in the treatment of hyperpyrexia; but my own observation, and the fullest attention I have been able to give to the recorded observations of others, have convinced me that the real reason for the present abandonment of a remedy of superior power—to wit, bloodletting—does not lie alone in the advance of scientific pathology. "The thinking man," writes one of the most philosophical of living physicians, Dr. Stokes, "finds it hard to believe that the fathers of British Medicine were always in error, or that they were bad observers and mistaken practitioners. They, indeed, have rested from their labours, but their works remain; and he who reads the writings of Sydenham, of Haygarth, and of Fothergill, of Heberden and Fordyce, of Gregory, Cullen, Alison, Cheyne, or Graves, must have a very inapprehensive mind if he fail to discover that there were giants in those days, and that the advocacy of such ideas only indicates a state of mind not consonant with the modesty of science."

Clinical Lecture
ON
CONVULSIONS
DUE TO MORBID CONDITIONS OF THE UTERUS IN THE NON-PUERPERAL STATE.

Delivered in University College Hospital,

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GENTLEMEN,—In regard to the connexion between certain morbid conditions of the uterus in the non-puerperal state and the occurrence of convulsions, the subject to which I intend to direct your attention on this occasion, it may be said that comparatively little of a positive character is known. You are well aware that convulsions may be produced in two principal ways, and they have accordingly been divided into two classes—namely, centric and eccentric. The convulsions produced by the uterus come under the latter category; they are eccentric.

In considering this subject, let me remind you, in the first place, of the fact, very well known, that the sympathy existing between the nervous system of the uterus and the general nervous system is of the most intimate possible character. Of that we have abundant evidence. A remarkable instance of this is the fact that in the course of labour, if the patient be frightened, the labour may be altogether arrested for a time; and, conversely, a sudden fright may be the means of bringing on the process of labour. Again, sickness, a frequent attendant on pregnancy, is a sympathetic result of the condition then present. Sympathetic "uterine" sickness may occur also at other times, for it may be produced by certain morbid conditions of the uterus. It is, in short, one of the most common symptoms of uterine disease.

The occurrence of convulsions, as due to the uterus in the non-puerperal state, must be set down to the existence of some irritation in the uterus itself, this irritation acting in a reflex manner. The fact that the uterus itself can, in the non-gravid condition, give rise to convulsions is, it may be said, one which is not generally received and admitted. And, further, in quarters where so much as this is received and admitted, it has not yet been pointed out what is the nature of that irritation in the uterus which can and does give rise to these convulsions. This subject has for a long time occupied my attention, and having seen a considerable number of cases, I feel now in a position to express a very decided opinion upon it. I entertain the belief that there is a very well established connexion between the occurrence of convulsions and the existence of certain morbid conditions of the uterus.

The convulsions of which I am about to speak include those convulsive attacks which are ordinarily known and spoken of under the term of hysterical convulsions, and they include certain other cases of convulsions which lie in a sort of intermediate position between the hysterical and the true epileptic convulsions, and which may, for the want of a better term, be spoken of as epileptiform. But the great majority of these cases are such as have been distinguished

as hysterical. I do not intend, on this occasion, to discuss the general question of hysteria, but simply to deal with the convulsive attacks observed. A case recently under my observation in this hospital will form the text of my remarks, which will be limited to the facts noted in this particular case.

CASE.—*Acute Anteflexion of the Uterus, probably of one year's duration; Convulsive Attacks occurring frequently during that time.*—The case more fully reported is as follows:—L. F——, thirty years of age, admitted Nov. 15th, 1874. Married six years; has had one child only, four years and a half ago; no miscarriages. Respecting the family history, it is stated that her mother is alive, and has had a paralytic seizure, from which she has recovered. The patient was always delicate, but enjoyed fairly good health until the present illness. The catamenial discharge was pretty regular until three months ago, since which time it has not appeared. Quantity generally above the average. It was not attended with pain. Her health was good until twelve months ago. About this time the patient was engaged for some six weeks in nursing and closely attending upon her sick child; she attended it both day and night. To the nursing of the child and this considerable bodily exertion the patient attributes her illness. The illness began very shortly after the recovery of the child. It commenced with an attack which was denominated a "fit." This came on in the morning. She lost her consciousness for a second, was convulsed, and, on recovery, ran in a state of alarm into an adjoining room. Since that time, except an interval during last summer, she has had fits occurring once, twice, or three times a day, lasting for a brief space, and not generally accompanied with loss of consciousness. For a moment or two after the attacks her eyes are affected, and she "sees things before her eyes" and has "dreadful things on her mind." Sometimes she is unable to see for a few minutes. She does not fall down during the fit, nor does she bite her tongue. The fits occur most frequently at night. Lately, since menstruation has ceased—that is to say, for the last three months,—the fits have become more intense. She has somewhat emaciated. A short time after the commencement of her illness she was under treatment at another hospital, where the attacks were pronounced to be epileptic. Since menstruation has ceased there has been more or less leucorrhœal discharge, sometimes puriform in character; and this was observed first when menstruation should have occurred, but did not. For the last few weeks she has felt shooting pains in the left groin. A walk across the room is attended with difficulty. Intercourse gives rise to pain. A few days after the admission of this patient into the hospital, on November 18th, the catamenia returned, after three months' cessation, and continued for two days.

Up to the time of my first examining the patient (Nov. 30th) there had been no alteration in regard to the occurrence of the convulsive attacks, which, as I before remarked, occurred one, two, or three times in the course of twenty-four hours. On Nov. 30th I first made the examination, and on that occasion it confirmed the result of an examination which had been previously made by Dr. Williams and by the obstetric assistant. The result was that the uterus was found anteflexed. The uterus was large, anteverted, and extremely anteflexed, the fundus being low down between the cervix and the pubic bones. By the aid of the sound, the introduction of which was extremely difficult, in consequence of the sharpness of the bend of the uterus, the uterus was restored to its natural position. It may here be mentioned that the patient herself had supposed that she was pregnant, but it was not so. The diagnosis was expressed in the following terms:—In consequence of severe and long-continued exertion in nursing her sick child, the patient became the subject of anteflexion of the uterus; the anteflexion had since progressively increased in intensity, and the attacks of convulsions, together with the arrest of the catamenia, are due to this condition of the uterus. Up to this time, as already remarked, since the patient entered the hospital the fits had continued as frequently as before admission. After replacement by the sound the uterus was treated by inserting a cradle pessary, so as to elevate the fundus uteri, and to maintain it in that elevated position. The satisfactory accomplishment of this object, the elevation of the fundus uteri, was more than usually difficult in consequence of the size which the fundus of the uterus had attained.

The subsequent history of the case is as follows:—Dec. 1st: No fits in the night; one this morning, but less severe. 2nd: Five slight fits during the night.—3rd: Two slight fits this morning; severe pain in left groin last night, and this morning catamenia reappeared.—4th: No fits or peculiar sensations; catamenia continues.—5th: A slight fit yesterday afternoon, also two slight ones in the night.—6th: No fits.—7th: No fits.—8th: One in the night.—9th: No fits. 10th: One fit and two "peculiar sensations" last night. 11th: No fits.—12th: No fits.—13th: One fit last night. 14th: No fits.—16th: "Peculiar sensations" last night. 17th: Ditto.—18th: One fit.—19th: No fits.—20th: Two "peculiar sensations."—21st: Ditto.—22nd: One rather severe fit with "sensations."—24th: No fits.—27th: No fits or sensations.—Jan. 5th, 1875 (twelve days since the last report): A bad fit last night.—9th: Catamenia returned.—13th: Catamenia continues, discharge very profuse, and coming in gushes.—15th: Period ceased, and the patient was allowed to get up, having been kept in the horizontal position until this time.—18th: Not quite so well; had a fit this morning; has been up each day for the last three days.—19th: Another fit this morning.—21st: No fit for two days.—22nd: Discharged.

During the whole of the patient's stay in the hospital the only treatment to which she was subjected was the use of the sound on one occasion, the wearing of the "cradle" pessary, and the maintenance of the body in the horizontal position. The legitimate deduction to be drawn from the foregoing statement is, that the treatment adopted had a very decided influence in alleviating the principal symptom—viz., the convulsions—from which the patient was suffering. There can be very little doubt of that. Before the time of the commencement of the treatment the fits occurred frequently every day, while under this treatment they were not altogether abolished, but very much lessened in degree and frequency. The treatment virtually consisted in straightening the uterus. The mechanical appliance used had the simple effect of preventing the descent of the fundus uteri anteriorly, the organ being thereby straightened.

In the next place, I will proceed to explain what I believe to be the connexion between the malady in question and the occurrence of the convulsive attacks. The case was one of very acute anteflexion of the uterus. When the uterus is actually bent on itself, as in this case, one physical result is inevitable—namely, that the tissues of the uterus are excessively compressed, especially on the concave side of the bend. The thickness of the uterine wall at the situation where the bend ordinarily occurs—viz., at the junction of the cervix and the body, corresponding to the internal os uteri—is not so great as above that point, but still it is considerable. The tissues of the uterus at this situation necessarily undergo compression, as the result of the acute flexion which is present under these circumstances. The result is that the blood is forced out of the tissues of the uterus at the situation in question by the action of this compressing agency. And inasmuch as the uterus is everywhere pervaded by nervous filaments, these delicate structures become also subject, like the other tissues of the organ, to forcible compression. In proportion as the flexion becomes increased in intensity so does the compression increase in degree. It is this compression of the nervous filaments of the uterus which constitutes, in my opinion, the irritation of the uterus which gives rise to the symptoms in question, and which, in fact, produced the convulsions in the particular case above described. It is one of the facts in this case that the fits were often worse at night. This is to be accounted for, I believe, by the change in the position of the uterus produced by the recumbent posture. Another explanation may be given of the connexion between the flexion and the occurrence of convulsions, and it is this: that inasmuch as the fundus of the uterus becomes acutely congested from time to time, as the result of this flexion, the convulsions are produced by and as the result of that acute congestion. It would be quite reasonable to suppose that acute congestion of the fundus of the uterus might cause such irritation of the organ as to give rise to convulsions. One of the most important effects of flexion of the uterus is the occurrence of congestion of the two extremities of the uterus, the fundus and cervix uteri. Doubtless, in this very case such congestion was present, and was intensified from time to time by the change of posi-

tion of the patient. I, however, entertain the belief that the compression of the nerve-tissues, as well as compression of the tissues of the uterus generally, is really the starting point of the irritation which exists.

It has been a maxim with almost all writers and observers who have been really acquainted with diseases of the generative organs in the woman, that marked hysteria is connected in some way with disease of the uterus; but the precise nature of that uterine disorder, and the mechanism of the process by which the symptoms are produced, have never been satisfactorily described. My own observation has led me to the conclusion that marked flexion of the uterus exists in all cases of severe repeated hysterical attacks. This is the theory I advanced in the last edition of my work on Diseases of Women, published in 1872. At this moment I desire, however, to limit myself to the consideration of the nature of the convulsive seizures incidental to hysteria.

Respecting the truth of the theory now put forward confirmatory evidence is by no means wanting. Niemeyer, whose facts are generally considered as reliable, and who was certainly not disposed to attach an undue importance to these special uterine disorders, says that flexions, more than any other of the disorders of the uterus, give rise to hysteria. This is an exceedingly valuable statement, coming as it does from a distinguished modern pathologist. It is, in fact, a piece of evidence from the opposite camp, so to speak, and is important as bearing out my view of the case. The further arguments I submit are as follows:—In the first place, there is the *à priori* argument. It is reasonable to suppose that compression of the uterine tissues, involving as it must do compression of the nervous filaments, may produce such irritation as to give rise to convulsions. It does not, however, at all follow that such compression will always produce convulsions. It would be as reasonable to find fault with the theory that convulsions are sometimes due to the presence of worms in the intestinal canal, because these entozoa do not invariably give rise to convulsions. No one, however, doubts the connexion between these two events. It is therefore not a sufficient reply to this statement to say, that if this theory were true convulsions would always occur when compression of the uterine tissues is produced. The clinical arguments in favour of this view seem to me to be overwhelming. I have seen a considerable number of cases in the course of the past few years where convulsions of the kind described have actually ceased when the flexed uterus was so treated as to diminish or remove the compression existing at the seat of the flexion. And in all such cases I have observed that this kind of treatment produced a very marked effect even when it did not succeed in at once removing the attacks. This is an important argument. Another is, that the position of the body, or any exertion which has a tendency to aggravate the flexion, invariably aggravates and intensifies the convulsions. I could relate many instances where this interesting fact was observed. Thus, in one case of severe retroflexion, giving rise to convulsions, the attacks instantly ceased when the patient was made to lie on her face, this improvement being in that case effected without any other mechanical treatment of the uterus whatever. In another case, that of the wife of an Indian officer, in whom the convulsive attacks were produced by anteflexion of the uterus, they invariably occurred when the patient was sitting upright at the dinner table, that being the only time of the day when they did occur. The sitting position increased the anteflexion, and thus gave rise to the convulsions. These are typical instances, but I could mention several such cases. A further argument is the effect of measures having a more direct curative action upon the flexion, and which have been employed with the idea of restoring the uterus to its proper shape. I mean the employment of the sound and the use of pessaries in order to restore the uterus to its true natural shape. I now state that the effect of these measures has been, clinically, to give proofs, over and over again, of the validity of the position which has been taken up, inasmuch as the convulsions, or the tendency to convulsions, have always been influenced favourably in direct proportion to the degree in which the flexion has been favourably acted upon. Another argument which I have to submit to you is the result of very careful exploration of the uterus in many of these cases, an exploration made by the finger and the sound. It will be found in these cases that the introduction of the sound, if properly managed, gives no pain to the patient until it reaches the situation where the flexion exists. When the sound has been introduced a distance of one inch into the cervical canal its point comes in contact with that part of the uterine wall which is the seat of the compression; and invariably it is found, under these circumstances, that the patient experiences very great pain when that part is touched by the point of the sound. After the point has passed through this strait, and when passed beyond the site of the flexion, there is no more pain felt by the patient. But the mere touch of the point of the sound on the uterus in this situation always gives rise to extreme pain and evidence of extreme sensitiveness. It requires that the examination should be conducted with great care in order to give this result, because it generally happens in these cases that the uterus as a whole is also sensitive to the touch. But by carefully conducting the examination you will be able to define those parts which are so very sensitive to the touch.

This theory, which has now been brought under your notice, that the convulsive seizures in the case above detailed and in similar cases are traceable to the compression of the tissues of the uterus, is not, then, a fanciful one; it rests upon observations made carefully and repeatedly. And it is quite certain, to my mind, that its truth will be confirmed by all careful and unprejudiced observers. The uterus is in its normal and healthy condition very little sensitive to the touch, and little liable to give rise to reflex disturbances; but the clinical evidence is to the effect that its sensitiveness to the touch, and what may be termed its "reflex sensitiveness," are very much increased by compression arising from the alteration of the shape of the uterus, and especially that alteration which is now so generally known under the term of flexion of the uterus. These reflex disturbances are many in number, and the liability to convulsive attacks is simply one of them. The case which has been brought before you is one of anteflexion, but I have seen very severe convulsive attacks occur in cases of retroflexion, and it appears that they are liable to occur in a more *severe* form in cases of retroflexion. The degree of the flexion is liable to be greatest in cases of retroflexion, and hence the severity of convulsions due to it will be greater than in the case of anteflexion.

Time will not permit me to enter on the details of treatment applicable to such cases as the above, but I have endeavoured to give sufficient indications as to the principles which must constitute the basis of the treatment.

ON ANÆMIA.

BY JULIUS POLLOCK, M.D., F.R.C.P.,
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THE disease which we call anæmia, more or less incorrectly, but for which perhaps it would be difficult to find a more appropriate name, may be the result of a number of different causes. I do not propose now, however, to consider more than one form of anæmia—that which we meet with so frequently amongst young unmarried women, and which generally occurs in connexion with some disordered state of the menstrual function. In such cases the catamenia are usually irregular in their appearance, frequently absent for months together, the discharge pale and scanty when it does occur, lasting sometimes but a few hours.

The relation of anæmia to amenorrhœa, pathologically, is of some interest. Is the latter due to the poverty of the blood? or is the formation of red corpuscles in some way discouraged by the irregular performance of the uterine functions? Doubtless anæmia, however produced, frequently gives rise to a scanty and infrequent catamenial discharge, as we see in advanced phthisis, and other wasting and blood-spoiling disorders. But is the converse true? Will functional irregularity of the monthly periods, when continued for any time, produce anæmia? I believe it will. There is some reason to suppose that the menstrual discharge is, to a certain extent, an excretion; and possibly its absence may lead to the retention in the blood of some material hostile to the formation of red-corpuscles. We

certainly see cases of young girls who have enjoyed good health and looked well up to the period of puberty, in whom anæmia has gradually occurred in consequence of the non-appearance of the catamenia at their proper time; and the accidental stoppage of the courses in a healthy young woman, from exposure to wet and cold at an unfortunate time, or from some shock to the nervous system, will often, if the function remain suspended any time, lead to anæmia. But I do not think that the disorder is produced in these cases so much (if at all) by the retention of some morbid matter in the blood, as by the disturbing effect upon the nervous system of the absence or irregular performance of an important sexual function.

When this form of anæmia is allowed to go on without proper treatment, the patient ultimately presents an almost blanched appearance, the skin having a sickly green tint; hence the term "chlorosis." The lips and the cheeks are usually as pale as the forehead, but the face not unfrequently has an unnatural flush, which might deceive the inexperienced. The conjunctivæ are of a pearly white, sometimes of a slightly yellow hue, which must not be mistaken for jaundice. It is a wonder how such persons can get about or do anything, and, in truth, they are not fit for much. Upon the slightest exertion, and especially on going upstairs, they suffer from palpitation of the heart and breathlessness. They often feel faint, giddy, and sick; complain of pain in the left side, indigestion, loss of appetite; the bowels do not act well, the tongue is furred, and the breath foul; towards evening the ankles become puffy and swollen; a soft systolic bruit may frequently be heard over the base of the heart, and in the veins of the neck the stethoscope will detect the so-called "humming-top" murmur or *bruit de diable*; but it must be remembered that this latter sound may be sometimes produced in a healthy person by the mere pressure of the stethoscope. Anæmic women are generally more or less nervous, and sometimes hysterical, but I should not say there was any marked connexion between anæmia and hysteria.

How are these cases to be treated? Clearly by so nourishing the blood as to build up the red corpuscles and raise them to the proper standard in health. Steel is the medicine upon which we chiefly rely to effect a cure, but to be successful in the treatment requires some care and discrimination. If the tongue is coated and the digestion much impaired, the more astringent forms of iron, such as the sulphate or the perchloride, are often not tolerated at first; and the ammonio-citrate, the mistura ferri co., or the ferrum redactum, will be the best to begin with. In a large number of cases I have found nothing so successful as a combination of the ammonio-citrate of iron and rhubarb in suitable doses, with equal parts of some bitter infusion and peppermint-water. Sometimes the addition of two or three grains of the carbonate of ammonia seems to be useful. I make rather a point of the rhubarb, although it is so disagreeable to take, as I believe it much assists the action of the steel, especially when the stomach is out of order. If the patient is very nervous, ten grains of the bromide of potassium may be added with advantage to each dose of the mixture. If the rhubarb in the mixture does not act enough upon the bowels, it will be necessary to prescribe some aperient pill to be taken at bedtime. Preparations containing aloes are of service, and may be combined with steel. Pepsine is often useful with the meals. The diet should be light and simple; beer had better be avoided in most cases, and a glass or two of light claret may take its place with advantage. I believe claret is certainly better than port, although that wine is so often recommended. A moderate amount of exercise out of doors, when the weather permits, should be insisted upon, but anything like fatigue must be avoided. A tepid bath in the morning and a rub down afterwards with a rough towel is a good thing. By and by, in a few weeks, more or less, the steel and rhubarb mixture may be left off, and fifteen drops of the solution of perchloride of iron given after each meal in a wineglass of water.

Under the very best and most careful treatment, the improvement in anæmia is not unfrequently slow and tedious, and, to prevent disappointment, it is as well to caution patients and their friends that they are not to expect, as a rule, any very rapid change. Once get the patient on the road to health, however, and time and perseverance will do the rest.

Harley-street, Cavendish-square.

CASE OF ANEURISM OF THE ANTERIOR COMMUNICATING ARTERY.

BY T. W. McDOWALL, M.D. EDIN.,
MEDICAL SUPERINTENDENT OF THE NORTHUMBERLAND COUNTY ASYLUM.

THIS case appears worthy of record on account of the position of the tumour. Although I have now examined the brain in several hundred cases, chiefly among the insane, it never was my good fortune to meet with a specimen of aneurism of any of the cerebral vessels except the one to be now described. Any remarks which it may be considered necessary to make shall be reserved until the history and post-mortem appearances have been given.

A. B—— was admitted into the Northumberland County Asylum on October 16th last. She was at that time sixty-nine years of age, a widow, and said to be labouring under her first attack of insanity, which had existed for "some weeks." The cause of her illness was unknown. She was not epileptic, but was considered suicidal and dangerous. She was certified as being restless, always unhappy, and ever suspicious of those about her; memory greatly impaired; imagining that some one has robbed her, and disposed of her property; she has attempted several times to throw herself before passing trains.

Upon examination, on admission, she was described as slightly below the average height, fairly muscular, rather corpulent, complexion sallow, eyes grey, hair fair, temperament phlegmatic, expression vacant and demented. Circulatory system: Pulse 80; arteries at wrist atheromatous; no cardiac murmur. Respiratory system normal. Digestive system: Tongue clean; bowels regular; appetite pretty good; she states that everything she eats has a nasty, bitter taste. Genito-urinary system normal.

Mental condition.—This is evidently a case of dementia, though there are delusions of suspicion. She with difficulty understands the simplest questions, and is very incoherent in her answers. Her memory is very defective, especially concerning recent events. There is considerable depression of spirits and listlessness of manner. She states that she has been robbed of money by pitmen entering her house at night.

The following notes will show the progress of the case, which during life presented no special features of interest.

Oct. 17th.—In conversation she always reverts to the pitmen having plundered her house. So far she has conducted herself well, and attended to the calls of nature. Appetite good; bowels regular.

19th.—She is cheerful and apparently contented, but quite demented and childish in manner and conversation. Sleeps well.

22nd.—Still labours under the delusion that her house is being robbed. Takes her food well, and is otherwise unchanged.

Nov. 13th.—There is no change in her mental condition, but her bodily health and condition appears rather feeble.

Dec. 2nd.—She is decidedly more demented; her memory is much worse, and her conversation quite unintelligible.

Jan. 4th.—Deterioration progresses; she has become filthy in her habits. Water enemata were tried on three occasions, in the hope that her habits would be improved, but the result was not satisfactory. Her bodily condition is markedly worse.

Feb. 10th.—No decided change in mental or bodily condition since the date of last entry. The appetite continues fair, bowels regular.

March 9th.—She has a slight attack of bronchitis. To be kept in bed. Ordered milk, beef-tea, and four ounces of whisky daily. Pulse 90, very feeble.

16th.—Bronchitis has disappeared; a small bedsore is coming over sacrum. Patient to sit up in a carpet chair for a few hours daily. She is now in a very feeble and helpless state, dirty in her habits, and requires constant attention.

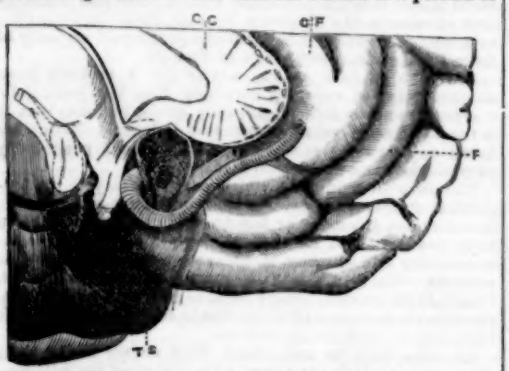
24th.—Bedsore over sacrum is enlarging and deepening, in spite of most careful nursing.

April 14th.—She is now confined to bed during the whole day, becomes more and more feeble, and the bedsore is in a sloughy condition. Liberal diet and stimulants continued.

19th.—Worse in every respect.

21st.—Died to-day.

Autopsy, thirty hours after death.—Weather warm. Body free from bruises and other marks of injury, but there is a large bedsore, and a small ulcer on each leg. The body is fairly nourished. No rigor mortis.—Head: Calvaria of average thickness; dura mater adherent in frontal region. During removal of brain, a large quantity of fluid—several ounces—escaped. There is no thickening or opacity of the arachnoid, but the amount of subarachnoid effusion is very great. The vessels at the base, and all the large arteries throughout the brain, are very atheromatous. All the convolutions in the frontal and parietal regions are atrophied, but the third parietal on each side is the one most affected. The membranes strip with great facility. On section, the grey matter is found pale and much atrophied, and the white is dirty in appearance. On a level with the corpus callosum, in each centrum ovale, there are numerous—about twelve—minute points of yellow softening. The lateral ventricles contain but a small quantity of fluid; their lining membrane is normal. Upon separating the hemispheres, and lying immediately in front and above the optic commissure, is an aneurism of the anterior communicating artery. The size, position, and relations of the tumour are represented, after a fashion, in the subjoined rough sketch. The internal surface of a portion of



the frontal and temporo-sphenoidal lobes is given. C C is the corpus callosum divided longitudinally; G F, the gyrus fornicatus; F, the median aspect of the first frontal convolution; and T S, the tip of the temporo-sphenoidal lobe. The aneurism is of an irregularly oval form, the long diameter being from above downwards. Its dimensions are—greatest length, ⅝ in.; antero-posterior diameter, $\frac{7}{12}$ in.; diameter from right to left, ⅝ in. In the drawing the tumour is shown with a portion of the wall on the right side removed. We are thus enabled to exhibit the position of the clots it contained. Its upper fourth is occupied by a firm clot, of a dark-red colour, and firmly adherent to the wall of the sac. A small clot projects into the cavity on its left side, about the middle, marking the orifice of communication between the left anterior cerebral and the anterior communicating arteries. In the drawing, the continuation of the *right* anterior cerebral artery is seen to spring, as it were, from the posterior part of the aneurism. Once free from the tumour, both anterior cerebral arteries pursue their usual course, as may be seen in the drawing, where for convenience only a short portion of them is represented. The walls vary much in thickness, and are of a dense white appearance—indeed, exactly like what is usually seen in atheroma of any of the cerebral vessels. By pressure the tumour has made room for itself in the surrounding cerebral tissue, but has not caused softening or other morbid process.—Thorax: The pericardium contains about two drachms of yellow serum. Heart's valves competent. The cardiac cavities contain dark fluid blood and partially decolourised clots. There is considerable atheroma of the aorta and coronary arteries, these vessels being also markedly dilated. The mitral valves are thickened at their base. Right lung adherent posteriorly and to the diaphragm; its posterior part congested and very œdematous; weight 21¼ oz. Left lung adherent posteriorly; congested and œdematous like the right; weight 19½ oz.—Abdomen: Liver soft and somewhat fatty; weight 40 oz. Spleen pulpy; weight 4 oz. Capsule of right kidney firmly adherent in many places; cortical substance pale and atrophied, and contains several small cysts; weight 3¾ oz. Left kidney in a similar condition; weight 4½ oz.

Remarks.—As already stated, the chief interest in this case lies in the unusual position of the tumour. In recording a single case it is not necessary to consult the whole literature of a subject; I shall therefore be content to refer to Mr. Erichsen's excellent summary on intracranial aneurism contained in his "Science and Art of Surgery," pp. 81–87. From Sir Wm. Gull's sixty-two cases, it would appear that the basilar artery was affected in twenty cases, and the middle cerebral in fifteen; in eight of the remaining, the internal carotid was affected as it lay by the sella turcica, and in six others the aneurism was situate on the anterior cerebral artery. Although the causes of cerebral aneurism are stated by Mr. Erichsen to be obscure, in the present case there can be no doubt that it was due to the atheroma of the vessel. In it, as in those already described, the walls of the aneurism consisted of both coats of the vessel. From its position and size, and consequent pressure on surrounding nerve-tissue, no results followed; and during life no symptom existed to indicate its existence. There may have been optic neuritis, but no ophthalmoscopic examination was made.

For some of the preceding notes I am indebted to my colleague Mr. Davies.

ON

THE PHYSICAL CAUSE OF PRESYSTOLIC MURMURS.

BY ALFRED H. CARTER, M.D. LOND.,

RESIDENT MEDICAL OFFICER TO THE GENERAL HOSPITAL, BIRMINGHAM.

THE subject of this paper was suggested by an article from the pen of Dr. Alexander Harvey, of Aberdeen, appearing in the columns of THE LANCET (June 12th and 19th); from which I gather that he not only finds insuperable difficulties in the way of accepting the explanation of Dr. Gairdner as to the physical cause of the so-called presystolic murmur, but that he doubts altogether its existence as an established fact.

The question he has raised is, I think, an important one, and one that should by this time be practically settled. Nobody doubts that the mitral orifice may be so contracted or altered by disease as to become an obstacle to the flow of blood through it. The question is whether such obstruction can and does give rise to an audible murmur; and if so, as to what are the characteristics by which it may be clinically recognised. I own that I am one of those who have been accustomed to regard a presystolic murmur as a frequent if not invariable result of mitral stenosis, admitting of as accurate a diagnosis as any other form of cardiac valvular disease.

In the first place, what is the meaning to be attached to the word *presystolic* as applied to a murmur? I understand it to imply a murmur which runs up to and ends with the first sound, which is the clinical expression of the commencement of the ventricular systole; and hence a murmur whose essential characteristic is that of immediate precedence of that systole. A murmur of this sort is, of course, in one sense diastolic, in that it occurs during the diastolic period; but the above term is preferable, as conveying additional and more exact information as to the characters presented by it.

In the second place, has such a murmur as here described, considered for the present altogether apart from the mechanism of its production, any existence in fact to the ear of an observer? This question demands a categorical answer either in the affirmative or negative. If the latter, then there is an end of the matter, as it is an obvious waste of energy to attempt to prove that mitral stenosis may be recognised by what cannot be shown to exist. But, on the other hand, once admit that such a murmur is not only

heard but heard frequently, it behoves us to inquire into the conditions which are necessary for its production; and, since it is a morbid sign, to endeavour to correctly interpret its anatomical signification.

To repeat, then, I have heard over and over again—and my observations have confirmed those of many of the most accurate clinical observers—a murmur occurring during the diastolic (ventricular) period running up with increasing intensity to, and ending with, the first sound when this is present; or when, as is often the case, the latter is masked by a murmur, passing without interruption into the systolic bruit. There is frequently also an appreciable interval between it and the preceding second sound, which, indicating as it does the commencement of the ventricular diastole, shows that the murmur in question, in such cases, does not occupy the *whole* of the diastolic period. When this interval can be made out, which is not always, it follows also that it cannot be due to incompetence of the aortic valves, the closure of which is directly or indirectly the cause of the second sound, for murmurs from this cause invariably commence simultaneously with the second sound, or so much of it as may remain audible. But more of this anon. This murmur, as I have heard it, is of maximum intensity at the left apex, as determined by the site of impulse, though sometimes a little to the upper and sternal side of this spot. And, lastly, a large proportion, larger probably than that of any other cardiac murmur, is accompanied with a distinct and obvious thrill.

Admitting, then, this statement as an established fact, as, personally, I feel bound to do, I will pass on to investigate its most probable cause in the light of modern clinical knowledge. It will facilitate matters, I think, if we first call to mind what is going on in the normal heart at the time when this murmur is asserted to occur. Without going into all the details of the mechanism of the production of the first and second sounds, no one, I take it, is prepared to deny that they are respectively the direct or indirect result of the closure of the auriculo-ventricular valves on the one hand, and of the aortic and pulmono-arterial valves on the other. The former marks the commencement of the ventricular systole, both ventricles contracting simultaneously, and continues for two-fifths of a second, when, without any appreciable interval, it is followed by the second sound, the first result of ventricular relaxation, or, in other words, the commencement of the diastole. Then a pause for two-fifths of a second, during which blood flows from the auricles into the ventricles, which are already beginning to dilate: whether actively or passively does not materially affect my present purpose; suffice it to say that, relatively to the other cardiac movements, it is progressive, even, and gradual. During the whole of this time blood is also flowing freely into the auricles from their corresponding veins. At the end of this "physiological pause" the auricles are full, and the ventricles also, *so far as they have hitherto expanded;* but though the latter are full in this sense, they are not yet sufficiently distended for the purposes of normal circulation. But now another period of activity sets in: the auricle contracts, and, in contracting, forces the blood into the ventricle to its maximum physiological distension, and, this once reached, the ventricular systole immediately follows.

This auricular contraction appears to be Dr. Harvey's chief difficulty, if I mistake not. He objects to any such term as "forcible opening" of the cavity, and attempts to depreciate its importance by regarding the auricle as "essentially extraneous to the heart,—as being a mere appendage to it." But, quibble as we may about the precision of these terms, it simply comes to this: "forcible" means nothing beyond the exertion of force, which, if the auricle contract at all, must be the case. And, further, it is a perfectly gratuitous assumption that, because the amount of force exerted is relatively inferior to that of the corresponding ventricle, "it is an insignificant affair"; it should be remembered that the obstruction to be overcome is relatively a slight one, and no great amount of force is necessary for this purpose; the force, however, is in exact proportion to the obstruction.

Then again as to the "emptying." It seems irrelevant to discuss whether the emptying is absolute and complete, or only partial. At any rate, judging from the auricular contraction as it may be witnessed during life, there is good reason for believing that a considerable portion of its contents are discharged in the process, if it is not so completely emptied as the neighbouring ventricle. The auricular contraction, insignificant though it may be in one sense, is none the less real on that account: it is an established fact; it can be watched in action; and its duration has been accurately timed, and found to occupy one-fifth of a second (Marey).

The effect of this contraction is to complete the distension of the ventricles, and is immediately followed by contraction of the latter, with closure of the auriculo-ventricular valves.

Now what may be termed the "clinical pause" includes the physiological pause and the auricular contraction, inasmuch as the latter gives rise to no perceptible sound; it commences immediately after the second sound, and ends with the succeeding first sound. This pause is generally referred to clinically as "the diastolic period," and is essentially characterised by the passage of blood from the auricles to the ventricles. It is during this period, and especially towards the end of it, that the presystolic murmur is stated to occur. It is now so well known that constriction of a cardiac orifice may give rise to an audible bruit that it is unnecessary for me to do more than allude to the fact here. If, then, a murmur is heard at all during the diastolic period, there is no room for any other supposition but that it results either from obstruction to the flow of blood into the ventricle, or from the regurgitation of blood into it through the aortic orifice. The sole difficulty that remains is the diagnosis between these two varieties of murmurs, and that it is but slight in the vast majority of cases I will endeavour to show further on.

Next, let us look at the matter for a moment from another point of view, by assuming that the presystolic murmur, as above defined, not only exists, but also that it is the outcome of mitral obstruction (tricuspid obstruction being so extremely rare), and then test our position by physiological and anatomical fact.

The physical conditions which are necessary to the production of obstructive cardiac murmurs in general, as I take it, are these: the more or less forcible propulsion of blood from one cavity to another through a contracted communicating orifice. Any of these factors being absent, no murmur will result. With regard to the first point, "forcible propulsion," there is always ample pathological proof in the autopsies of those who have suffered during life from well-marked mitral stenosis.

In order fully to understand what we see under these circumstances, it is necessary to keep in mind the following points:—Whilst alluding to the physiology of a normal cardiac revolution, I drew attention to the two modes, so to speak, in which the ventricle receives its supply of blood; during the first and most protracted of which the auricle is in a condition of relaxation, and the blood is flowing onwards merely with the *vis a tergo* of the pulmonary circulation. The secondary effects of the additional strain offered by the contracted mitral orifice during each part of this process are most interesting. In the first part it is to cause dilatation of the auricle and of the cardiac terminations of the pulmonary veins; and in the second—that of auricular contraction,—to cause hypertrophy of the walls of this chamber; and lastly, during the whole of the diastole, the general result is that of increased tension of the pulmonary circulation, which is compensated for by hypertrophy of the right ventricle—an invariable incident, at one time or another, in the life history of all cases of well-marked mitral stenosis.

And what is the conclusion to be drawn from all this? Why, that a large quantity of blood is propelled with unusual force, and with increased celerity (owing to the diminution in size of the aperture of exit), from the left auricle into the ventricle of the same side through a contracted mitral orifice—circumstances more favourable than which could not be conceived for the production of such a murmur as the one in question.

Then, with regard to the fact of increased intensity of the murmur towards its termination. A most plausible explanation of this feature of a presystolic bruit follows as a matter of course, when we take into consideration the increase of force exerted by the auricular contraction over and above that exerted in the early part of the diastolic period.

And, once more, with regard to the interval before alluded to as frequently occurring between the second

sound and the beginning of the mitral bruit, I would suggest as an explanation that, in these cases, during the early part of the diastole neither is the quantity of blood nor the force with which it is propelled sufficient to cause an audible murmur.

And now a few words in conclusion with regard to the clinical aspects of presystolic bruits. Every practical physician will admit that instances occur in which the greatest care and deliberation are necessary to ensure a correct diagnosis; in some, perhaps, it may be that a decided opinion is impossible; but, on the other hand, there are many in which the morbid condition is obvious, and is easily recognised; and, again, there are many of which, judging merely from the murmur as heard by the stethoscope, we are unable to speak positively, but become clearly apparent when the collateral circumstances and conditions are closely investigated. In the first place, a typical presystolic murmur, presenting all the characters to which I have previously alluded, uncomplicated by any other valvular disturbance, requires nothing beyond an intimate acquaintance with these features, and a sharp ear, to make a correct diagnosis a certainty. The only murmur that could possibly be mistaken for it is an aortic regurgitant; and if additional aid in coming to a conclusion is necessary, I think it may be found by attention to the following:—Aortic disease never causes accentuation of the second sound at the pulmonic cartilage (second left), and in my experience murmurs of this class are almost invariably heard more distinctly at the right than at the left side of the sternum at the level of the third rib cartilage. In mitral stenosis the reverse holds good in both instances. Again, the secondary effects on the heart and circulation are widely different in the two cases. In the former there is always some, and frequently very great, excentric hypertrophy of left ventricle, and the jerking pulse and throbbing carotids are almost constant accompaniments, whereas in the latter they are absent, and the right ventricle is hypertrophied.

Of course difficulties do occasionally occur, and the most serious of these arise from the frequent association with presystolic murmurs of others which, by reason either of their number, intensity, or duration, require the greatest care and the closest attention for their proper discrimination, sometimes even rendering this impossible. For instance, I can well imagine that a loud aortic regurgitant existing together with a presystolic murmur might render a differential diagnosis an impossibility; or, again, an association with a loud mitral systolic murmur of a similar pitch might also cause a great difficulty. But, as a matter of fact, there is frequently such a marked difference in pitch and quality between them as to render a diagnosis comparatively easy. There is a case at present in the hospital, under the care of Dr. Foster, which well exemplifies this.

Although much more might be said with regard to this matter, space only allows me to add that, if something yet is wanting to convince those who, with Dr. Harvey, still doubt not only the possibility of recognising presystolic murmurs, but also their very existence, I think it may be found on a careful perusal of the chapters relating to this topic in the recently-published "Essays on Clinical Medicine," by Dr. B. Foster, of this hospital, containing some of the practical experience of one who has worked much with a view of clearing up our knowledge of cardiac disease in general, and to whom personally I owe no small debt of gratitude for much of what ability I may possess to recognise and deal with difficult cardiac cases.

Birmingham.

CASE OF LONG-STANDING FISTULA IN ANO TREATED BY THE ELASTIC LIGATURE.

BY J. C. OGILVIE WILL, M.D.,

ASSISTANT-SURGEON TO THE ABERDEEN ROYAL INFIRMARY.

AMONG other purposes for which an elastic ligature may be employed, Professor Dittell mentions that of division of the tissues for the cure of fistula in ano; and though I do not consider that, as a rule, its use should be preferred to the cutting operation, in certain exceptional cases I think it may prove of advantage, of which the following is a well-marked example. The history of this case is reduced from a written statement supplied by the patient, and it certainly appears a very extraordinary one.

W. P——, aged fifty-one, states that in the summer of 1854 he suffered from great weakness of his back and legs, and severe pain after being at stool. He was then treated for "spinal disease" by the actual cautery, blisters, and the application of leeches round the anus. After being subjected to this treatment for eight months he attempted to resume his duties; but the pain after defecation continued, and even at other times he suffered so much uneasiness that, frequently after returning home at night, he applied leeches and poultices to relieve it. He continued in much the same state till August, 1864, when matter was observed issuing from an opening by the side of the anus. This discharge went on for eighteen months, during which period he had no pain at stool, but a feeling of great weakness and pain in the small of his back. During the next four years "red swellings" appeared from time to time round the anus, but with the aid of leeches and poultices they were got rid of. From 1870 to 1874 there was an occasional discharge of pus from a sinus, the flow sometimes continuing for three months, then stopping, and then again commencing; at times he could neither sit nor lie, but was obliged to walk about, which he found afforded greater relief than anything. In September, 1874, the pain while sitting increased, especially at one point on the inner side of the left buttock, where he could feel "something about the size of a pea, from which a hard cord extended to the anus." This swelling gradually increased, as did the pain; and he had again recourse to leeches and poultices, but, finding them of no avail, he applied to a medical man, who soon after requested me to see him.

On examination, I found a small opening in the perineum on the left side of, and distant two inches from, the verge of the anus. On introducing a probe, it revealed an indurated, deeply seated sinus, ending some little distance above the sphincter; but no internal opening could be detected. The lower part of the gut was separated from its surrounding structures to such an extent that the point of the probe could be swept round fully half its diameter.

Some days afterwards I completed the fistula by making an internal opening in the gut above the sphincter, and passed in a probe armed with a solid elastic ligature (similar to that described by Sir Henry Thompson in THE LANCET of Jan. 3rd, 1874), which I then, after detaching it from the probe, put tightly on the stretch and knotted securely. The ligature was considerably larger than the eye of a probe would admit, so I fastened them together by means of a thread of iron wire. At the moment when the ligature was being tied, the patient complained of considerable pain; but this soon passed off, and by the use of morphia suppositories he was kept quiet and comfortable. A pad of lint coated with an ointment containing salicylic acid was applied, and retained by a T bandage.

The ligature came away on the eighth day of the operation, and left a broad but healthy granulating surface, which gradually healed. The bowels were moved some days before the separation of the ligature, but its presence did not occasion any inconvenience.

In this case, on account of the length and depth of the fistula, considerable hæmorrhage would, in all probability, have followed the use of the knife; moreover the patient was weak from long suffering, of extremely sensitive and nervous temperament, the subject of heart disease, and much averse to a cutting operation; therefore I think it was a peculiarly suitable case for the employment of the elastic ligature, as not one drop of blood was lost during the entire proceeding, and the shock of the operation was much less than it would have been had division by a cutting instrument been the mode adopted.

Aberdeen.

THE FOOT-AND-MOUTH DISEASE.—This disease has broken out in Herefordshire among cattle and sheep, and has spread most disastrously among the famous Hereford herds. The last weekly returns show a favourable decrease on those of the previous week. In the Hereford district, according to previous returns, there were 585 head of cattle ill, while the last return shows 479 only. Unhappily, however, to counterbalance this, there is a large increase of the disease among the sheep, which number 613, and pigs 43.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF DEPRESSED FRACTURE OF SKULL; TREPHINING; FUNGUS CEREBRI; DEATH.

(Under the care of Mr. JOHN MARSHALL.)

FOR the notes of the following case we are indebted to Mr. A. Pearce Gould, late house-surgeon.

H. B——, a healthy young man, aged twenty-four, was admitted on Feb. 23rd, 1875, at 5 P.M., with the history that, while running fast, he had fallen and struck his head against a low spiked railing. He was on admission semi-conscious, answering questions when spoken to loudly, but speaking petulantly. There was a wound in the scalp above and in front of the left parietal eminence; the finger introduced into this came upon a depressed fracture of the bone, and a small quantity of brain-matter was found protruding from the wound. The pupils were equal, of normal size, and acted readily to light; pulse regular, small, 96.

Mr. Marshall saw him at once, and ordered chloroform to be administered, under the influence of which the patient vomited. The wound in the scalp was lengthened at each end, and then another cut, four inches long, was made at right angles to it across its middle. The four triangular flaps of scalp were then reflected back, and the pericranium extensively raised from the fractured bone. The depression was formed by the driving in of three triangular plates of bone, having their apices firmly wedged together in the centre and their bases rounded. The depressed area was about one inch and a half in diameter. As the bone could not be elevated, a small trephine was applied at the anterior part of the exposed bone, and when the part-circle of bone was removed the depressed fragments were readily elevated and removed. A small spiculum of bone was then found to be sticking up vertically with its point in the dura mater, which had a rent in it at least an inch long. Loose pieces of the inner table of the skull were removed, and sharp corners taken off with bone-pliers. The brain was seen pulsating through the wound in the meninges, and arterial blood oozed up at each pulsation. The wound was syringed with very weak cold carbolic lotion, and lint soaked in this lotion was laid on it, and covered over with lint steeped in carbolised oil. The head was shaved, and the patient was put back to bed. When the bone was being removed the pulse increased in force and diminished in frequency.—6.30 P.M.: Is lying quietly in bed; answers questions quite rationally, but slowly. Pupils contracted, especially the right; pulse 100, full and bounding; respiration 20; temperature 100°. After about every ten respirations he makes a long pause, followed by a few very deep respirations. Ordered ice-bag to head and evaporating lotion to forehead. To take nothing but iced milk.

Feb. 24th.—Slept well through the night. Quite sensible this morning. Complains of frontal headache and pain round the wound, with severe paroxysms; forehead feels hot; skin hot and moist; pulse full, rather hard; tongue a little furred at edges, dry in centre; pupils equal, normal; has passed water voluntarily; bowels have not been open; urine pale, clear, acid, sp. gr. 1024, no sugar nor albumen. Dressings removed this morning; the wound syringed and dressed as at first. Temperature (axilla) 101°; pulse 104; respiration 20.—10 P.M.: Temperature 105·2°; pulse 105; respiration 21. Moaning, restless, half asleep; pain in the head almost the same as this morning; slight intolerance of light; pupils normal; pulse full, bounding, and rather hard; face pale. At 7 P.M. this evening he began to take one grain of calomel every four hours, and one drop of tincture of aconite every half hour.

25th.—Is in much the same state as yesterday. Mind clear; frontal headache; pupils equal, not contracted; no marked photophobia; no paralysis; no vomiting; skin dry, rather hot. Pulse 108, soft, jerky. Bowels have acted freely; wound dressed as before. The membranes are of a darker purple colour than before, and there is a slight protrusion of whitish brain-matter through the laceration in them; the edges of the wound are quite quiet; discharge slight and serous. Temperature 103·4°.—10 P.M.: Temperature 105°; pulse 130, rather irregular, soft; respiration sighing. Tongue dry; thirsty; bowels open again; no change in head symptoms.

26th.—2 A.M.: Pulse 108, very small, regular. To take the aconite every two hours.—11 A.M.: Had a short, slight rigor at 7.30, and another a few minutes since. Pain in the head has increased; felt sick this morning; pulse small, rapid; skin dry; tongue dry; bowels acted twice in the night; quite conscious. When the dressings were removed to-day there was a strong peculiar smell, resembling that of anatomical preparations. The hernia cerebri has more than doubled in size since yesterday; is now as large as a walnut, of white colour speckled with red, evidently consisting of brain-matter. The edges of the wound are granulating, and at one part adherent to the brain. Temperature 105·4°.—2 P.M.: Is less conscious. Has been twice sick. Pulse 128, regular and hard. To take aconite every half-hour. Respiration 40. The cerebral hernia is rapidly increasing in size, its surface now being as large as the external wound, pulsating in the middle, redder in colour, very soft and loose. A piece of lint dipped in carbolised oil is laid over it.—3.10 A.M.: Quite unconscious; eyes fixed; pupils equal, normal size; has been sick again twice. Pulse soft, small, irregular; respiration 56, very embarrassed; temperature 107·6° in rectum; 105·1° in axilla. The cerebral hernia is much larger, hanging over the lower edge of the wound as low as the left ear, very loose, with numerous dark-red spots, slight pulsation perceptible at one point, at the upper part; its surface is as large as the palm of the hand. The hernia increased in size until death, which took place at 4.50 P.M. Temperature in rectum at 5.10 P.M., 107·6°; at 5.30, 107·2°; at 5.50, 107·2°.

Autopsy, twenty-one hours after death.—Weather cold. Rigor mortis very great. The hernia cerebri has shrunk to about half the size it was during life, measuring two inches and a half by two inches, and appearing as a reddish-yellow mass. Dura mater very adherent to skull, presenting no abnormal appearance inside or out. A thin ridge of purulent lymph surrounded the part exposed in the wound, and effectually prevented the passage of fluid between the dura mater and the bone. The lateral ventricles contained rather less than their normal amount of fluid. There was purulent lymph in the arachnoid cavity over the upper and anterior part of the left hemisphere, but here only; no excess of fluid in arachnoid cavity. The vessels of the pia mater were injected all over the brain, and along the larger ones was an effusion of opaque fluid, and, at some points, of lymph; this condition was found over cerebellum and base of brain as well as on the hemispheres. There were patches of bright redness at some places, in which the vessels could be distinctly traced. The brain was notably paler than normal. On opening the chest, six ounces of dirty brownish-green fluid was found in the left pleura. On raising the left lung, the ligamentum latum pulmonis was found to have disappeared, and the lower lobe of the lung was extensively eaten away close to the spine; there was a rent in the œsophagus at the same place; the pleura was stripped off from the seventh and eighth ribs for some distance; no bruising around. These were supposed to be the effects of post-mortem digestion. Stomach healthy. Heart large, soft. Spleen large, dark. Kidneys congested. A little purulent lymph was found over the muscles covering the thyroid cartilage, for which there was no apparent cause. No other injury was detected.

MIDDLESEX HOSPITAL.

SPONTANEOUS CURE OF AN ANEURISM OF THE ABDOMINAL AORTA; DEATH BY URÆMIA.

(Under the care of Dr. ROBERT LIVEING.)

THE following case, for the notes of which we are indebted to Mr. Tomes, house-physician, presents many points of extreme interest. Although the aneurism, as

shown by examination after death, was of considerable size, an important sign of aneurism — lateral expansion — was absent. At the post-mortem examination it was demonstrated that in this case, at least, the channel of circulation was behind the mass of the tumour. The supervention of albuminuria, and finally of uræmia, are facts of great clinical importance.

Elizabeth T——, aged fifty-two, was admitted into the Northumberland ward on April 27th. There was nothing of importance in her family history. She had borne ten children, three of whom were born dead; one miscarriage. She said she contracted syphilis from her husband sixteen or seventeen years ago; the miscarriage and two of the still-births were subsequent to this. The present illness commenced twelve months ago as an aching pain in the left side, worse at some times than at others. Subsequently it became continuous, and soon she perceived a small lump the size of a walnut midway between the navel and the breast-bone. The pain went on increasing, and the tumour grew, but very slowly. Of late she had lost her appetite, had retched frequently, and had also lost flesh.

On admission she was emaciated, and bore the marks of old syphilitic sores on the face, arms, and legs. Tongue furred and white. She complained of constant nausea; retched frequently. No appetite; and had a "burning" pain in the site of the tumour, not increased by food. There was great tenderness of the abdomen, especially about the right iliac region; percussion could not be borne. An irregular, roundish, hard lump, not particularly tender on manipulation, occupied the epigastric region, and extended into the left hypochondrium, about the size of a large fig; the upper border being half an inch below the xiphoid cartilage, its lower, which was less distinct, being about an inch and a half above the umbilicus; its right border extended a trifle beyond the median line of the abdomen, and was distinctly defined as a hard ridge, separated from the remainder of the mass by a sort of sulcus. Towards the left it gradually faded off under the costal cartilages. It was firm to the touch; dull on percussion; pulsated visibly and forcibly with the abdominal aorta in an antero-posterior direction, but had no lateral expansion. A bruit was audible on auscultation, synchronous with the pulse. The liver dulness was about normal. No ascites; no œdema of the lower extremities. The urine, when first examined, contained no albumen, sp. gr. 1015, pale. Some tortuous and dilated superficial veins could be felt under the skin of the abdomen. The nausea and retching continued in spite of bismuth and hydrocyanic acid. The urine was examined daily, and contained no albumen until the 8th of May, eleven days after admission, when she was suddenly seized with a marked epileptiform fit. After this had passed off the urine was drawn off, and found to contain a decided trace of albumen and granular casts. She was consequently wet-cupped over the loins, and given a large dose of compound jalap powder in a black draught; but the latter having no effect, croton oil was given. The fits recurred, however, with increasing rapidity, the patient being comatose in the intervals until death, which took place on May 12th. In all she had from twenty to thirty fits.

At the post-mortem examination, on removing the viscera was seen a large globular tumour the size of a common orange, springing from the abdominal aorta just above the origin of the renal arteries. The pancreas was wrapped over its surface; several large veins, of which the left renal was the most remarkable, being distended to the size of a forefinger, passed over its surface. On closer examination, it was found that the cœliac axis took origin from its upper part, that the superior mesenteric artery arose from its front, and the two renal arteries came from underneath its lower margin. The tumour felt highly elastic, and gave the impression of containing fluid. On slitting up the abdominal aorta from behind, it was seen that the tumour was a globular cavity communicating by a large open window with the aorta. It was completely filled with a fibrinous clot. On cutting open the clot it was found to be everywhere soft and elastic, and to present a greyish woolly appearance throughout, but no trace of concentric lamination. The arteries arising in connexion with the tumour were all of fair size and average calibre, but fluid injected with considerable force into the superior mesenteric failed to reach the aorta; there appeared to have been a free channel for the blood through the aorta itself, behind the tumour. The lower part of the thoracic and upper part of the abdominal aorta presented numerous white raised patches of atheroma. The kidneys were both intensely engorged with dark blood. The capsule was torn off with difficulty, leaving a rough granular surface. On section, no diminution of cortex. Consistence of kidneys tough. The left renal vein was bound down to the anterior surface of the tumour. A few patches of lobular pneumonia in the lungs. The other organs were healthy.

The cause of death in this case was evidently uræmia from renal disease, which must have arisen quite independently of any mechanical interference with the supply, or return of blood from the kidneys due to the aneurism; for, on the one hand, both renal arteries were of fair calibre and pervious, although arising almost from the sac itself. The left renal vein, it is true, took its course directly over the tumour, but, on the other hand, both organs were equally congested and granular. The case is especially interesting, since it shows that the absence of "lateral expansion" in an abdominal tumour may occur in connexion with an aneurismal sac filled with an organised clot.

HUNTINGDON COUNTY HOSPITAL.

EPITHELIOMA OF THE ARM, DEVELOPED ON THE CICATRIX OF A BURN; AMPUTATION; MISHAP WITH ESMARCH'S BANDAGE.

(Under the care of Mr. HOLDERNESS.)

FOR the notes of this case we are indebted to Mr. Greenway, the house-surgeon.

Abel B——, aged forty-nine, a brower's man, was admitted on April 17th, 1875. When three years of age he was severely burnt on the right side and right arm by his clothes taking fire. The burn soon healed, except at a small spot over the elbow. This spot constantly kept healing up and breaking out again. Twelve months ago it broke out and rapidly spread all over the cicatrix until the arm presented a large ulcerated surface extending from about four inches below the shoulder to within two inches of the wrist-joint, encircling the entire limb. At the bend of the elbow was a large fungous mass, very tender to the touch, easily breaking down and bleeding, and discharging, together with the surface of the ulcer, very fetid pus. This fluid exhibited under the microscope, besides pus- and blood-corpuscles, a number of irregular-shaped, large, flat, thin scales, with nuclei and nucleoli, in some cases single and in others more than one. No history of cancer or syphilis could be obtained.

No disinfecting fluid had any effect in subduing the offensive fetor of the discharge until the whole surface of the ulcer was covered with a paste of chloride of zinc and opium. By this means all smell was quickly removed in a few hours. No improvement, however, occurred in the character of the ulcer, and, as it was evidently extending, amputation of the limb below the shoulder was proposed and performed by Mr. Holderness. At the operation, Esmarch's bandage was employed, and the elastic tubing was placed as high up the limb as was convenient, leaving space enough (as it was thought) for the circular incision to be made free of the margin of the cicatricial tissue. This, however, was not the case; for, immediately the incision through the biceps had been made, this muscle retracted beneath the tubing, and severe hæmorrhage from the unrestrained divided brachial and other arteries ensued. The removal of the limb was proceeded with, and the vessels secured with silk ligatures; not, however, before a good deal of blood had been lost. The stump has since progressed favourably, and is now almost healed. The point for consideration in connexion with this case is, What would have been the result of the early excision of the diseased spot at the elbow?—its character being recognised by microscopical examination of the discharge; and a lesson is taught that care is to be observed, in employing Esmarch's bandage, to leave sufficient space below the elastic tubing and the line of incision to prevent retraction of the divided muscles beneath it.

Reviews and Notices of Books.

Manual of Pathological Anatomy. By C. HANDFIELD JONES, M.B. Cantab., F.R.S., F.R.C.P., and E. H. SIEVEKING, M.D., F.R.C.P. Second Edition, revised, enlarged, and edited by JOSEPH FRANK PAYNE, M.B. Oxon., F.R.C.P. London: Churchill. 1875.

Lectures on Pathological Anatomy. By SAMUEL WILKS, M.D., F.R.S., and WALTER MOXON, M.D., F.R.C.P. Second Edition. London: Churchill. 1875.

STUDENTS of pathology—and who is there among practitioners of medicine that does not come within the designation?—may be congratulated on the simultaneous appearance of new editions of our two standard works on the science. Both have been for long out of print, and were indeed left far behind by the rapid progress of pathological work which the last fifteen years have witnessed. But their places remained unfilled in English medical literature, and we welcome their reappearance. The work of revision could not have fallen into better hands. The contributions to pathological knowledge which have been made by Dr. Moxon and Dr. Payne are many and various, and not least must be reckoned the excellent way in which each has performed his task in editing our handbooks of the science.

The general characteristics of the manual of Jones and Sieveking are well known. Its aim is to give an account, as full and comprehensive as is compatible with brevity, of what is known and conjectured regarding both general pathological processes and special organic changes. A useful description is given of each, and both facts and opinions are presented with clearness and impartiality, and the work is, on the whole, well brought down to the present day. The more important classical treatises have been freely used, the repertorium of pathological knowledge contained in the Transactions of the Pathological Society having been laid under free contribution.

The pathology of the general morbid processes, with an account of which the work commences, has furnished the editor with some of his most important work. The modern observations on the pathology of inflammation are incorporated with the old material. The great controversy on the part played respectively by tissue-cells and blood-corpuscles in the phenomena of inflammation and suppuration is only briefly alluded to for want of space, but the general conclusions are given. The editor avows himself convinced of the participation of the tissue-elements in the process, as well as the bloodvessels and cells. Septicæmia and pyæmia also occupy considerable space. The outline of the chief experimental evidence on the subject, which has of late been so abundantly furnished, is too brief to do anything like justice to recent investigation; but, so far as it goes, it is clear and fair.

In the revision of the section on Tumours, Virchow's work on Morbid Growths has formed the basis of the alterations and additions. The section has, indeed, been almost rewritten. The classification adopted is that of Virchow. Some forms of tumour are rather too briefly described, but the general questions incidental to the description of cancer and tubercle are very well discussed.

The special pathological anatomy of the various organs makes up the largest part of the volume, but into the details of this part it is impossible for us to go. The work of revision is here also on the whole well performed. The field is scanned with great completeness, no subject of importance being omitted. Here and there further additions might have been made with advantage. The account of the changes in the brain which are consequent on embolism needed fuller elucidation, and the pathological anatomy of the spinal cord is scanty. In the original edition it was very defective, and the trifling additions made fail altogether to bring it up to our present state of knowledge. Morbid conditions of the heart's walls are also too briefly given—a subject on which very much has been done since the first edition appeared. The account of the histology of both hypertrophy and fatty degeneration is very imperfect. With these and other similar exceptions, of no grave moment, incidental to the wide field to be surveyed, the work is well done. Every addition is clear and to the point, and those subjects which are still under discussion are impartially considered—arguments most relied upon on each side being given, and the most probable conclusion educed, without too great detail of the conflicting evidence. The book is in all parts pleasantly free from any attempt at dogmatic decision on doubtful questions. The illustrations of the first edition are supplemented by many fresh woodcuts, some from Rindfleisch and other continental works, others from original preparations by the editor, and many of the latter are of great excellence.

Dr. Wilks's "Lectures on Pathological Anatomy" were published originally in 1859, and the work was soon out of print. The task of the preparation of a new edition has been long, the preface informs us, in the hands of Dr. Moxon. The work itself bears evidence of much labour in its reconstruction. It could hardly have fallen into better hands. The great feature of Dr. Wilks's work was its original character, and this feature has been well maintained by Dr. Moxon in his additions, which, in some parts, amount to rewriting. In many portions, indeed, merely the skeleton of the old work remains, and has been reclothed with new material, and it may be questioned to whom the larger share of the work, in its present aspect, is to be ascribed. The chapter on Diseases of the Lungs alone has been revised by Dr. Wilks.

The pathological anatomy of the various tissues and organs of the body constitutes the subject of the work. General pathological processes are discussed only incidentally where they have special relation to the changes in certain organs, and at the end of the volume some of the morbid conditions which have been described under the head of certain organs are grouped together in their associated connexion, as they are seen in certain special diseases.

The work represents essentially the pathological experience of its two authors. The rare advantages which they have possessed of extensive, almost unrivalled, opportunities for observation, and the ability each has shown to make the best use of those opportunities, have enabled them to describe and discuss almost the whole range of the subjects which pathological anatomy embraces, in the light of their own observations and of their own careful and well-informed reflection. This confers a unity and consistence on the whole work. There are no uncemented facts, no disjointed quotations, no unmarshaled statistics. All parts are compactly grouped and welded together. In the preface to the original edition we were told that its pages contained no statement unverified by the author's own observation and experience. This, while it unquestionably added, perhaps incalculably, to the value of the work, was impressed upon its form very distinctly. The statement is true, though not to an equal extent, of the present edition, but the effect upon its style is even exaggerated, and the first person is predominant throughout to an extent which is not always quite fair to other workers, especially in a treatise which professes to, and does, present to a wide circle the pathological knowledge of the present day. The work is, however, one of great value, and the additions which have been made to it, in the completeness of range, and the thorough practical knowledge which each displays, leave nothing to be desired, and bring it in every respect thoroughly up to the present day. Its style is clear and exact.

Of the several sections we can only briefly speak. Almost every chapter has been extensively altered, none more so than the first one, on Diseases of Bone; the question of inflammation of bone being discussed with much ability. Diseases of the Heart receive very full discussion, as also do the Diseases of the Arteries, to which Dr. Moxon is known to have paid much attention. "Arterio-capillary fibrosis" meets, it is to be remarked, with little favour. An excellent description is given of the pathological anatomy of the brain and cord; which, although brief, is by far the best that exists in an English work, the results of the most recent observations being incorporated in the description. The chapter on Diseases of the Lungs has been revised, as we said, by Dr. Wilks, and it contains an excellent account of the morbid changes which underlie phthisis, the several views of their pathological character being stated with great clearness and impartiality.

The account of the Morbid Anatomy of the Stomach embraces an interesting discussion of the pathology of gastric ulcer. The view is rejected as unsatisfactory which ascribes its origin to the action of the gastric juice on an area in which an accidental arrest of circulation has taken place. Indeed, Pavy's explanation of the absence of self-digestion—that the circulating alkaline fluid neutralises the effect of the blood—is regarded as insufficient. The authors are inclined to attribute the occurrence of the ulcers to nervous influence, and to associate them with simple ulcers of the cornea.

In the description of Changes in the Liver, the mode of origin of hepatic abscess is considered at length. The theory of the mechanical action of embola in causing secondary abscess, on which stress has been laid, is doubted, and they are ascribed to the irritating quality of the clot from the inflamed region setting up a similar morbid action in the liver tissue.

A very good account is given of the Morbid Anatomy of the Kidneys. The identity of most forms of acute Bright's disease is strongly insisted upon; the various states of kidney representing the several stages of the affection. The authors have themselves met with no facts to suggest that a contracted kidney may be the ultimate stage of an acute inflammation.

The final section contains, besides the description of the association of diseased states, some excellent suggestions on the points to observe in making a post-mortem examination.

THE

OUTBREAK OF ENTERIC FEVER AT MÜLLER'S ORPHANAGE, ASHLEY DOWN, BRISTOL.

WE regret to state that the outbreak at Mr. Müller's Orphan Asylum near Bristol has assumed serious proportions; no less than 500 children being affected, of whom twelve have died, whilst others remain in a precarious condition, but no fresh cases have occurred during the last few days.

The asylum consists of five large separate buildings, and nearly 2000 children are maintained in them. The management of this huge establishment rests entirely with Mr. Müller, there being no committee, nor are any of the usual means of raising funds employed, Mr. Müller relying entirely on the efficacy of prayer to replenish his exchequer when it falls low. The buildings are well constructed, well ventilated, and are connected with the Bristol system of sewage. The water-supply of the establishment is taken from wells situated on the premises; the water is good, and the city analyst, Mr. Stoddart, reports it free from organic impurities. The water has been again analysed since the outbreak, with the same result. From a visit we paid to the asylum some few years ago, we can bear witness to the excellence of the domestic management, and the happy and contented appearance of the children.

For the details of the present outbreak we are indebted to Dr. Davies, the medical officer of health for the city of Bristol, who has most kindly furnished us with an account of the outbreak, so far as he has been officially connected with it.

The first notice received by Dr. Davies of the occurrence of the outbreak was on the 26th of July, when the local registrar returned five deaths from fever and one from hæmorrhage, which, on subsequent inquiry, proved to have been a case of typhoid, as having occurred at the asylum. Dr. Davies at once visited the orphanage, and obtained the following information. The disease commenced on the 24th of June. At first nearly 30 sickened, and these cases were severe. The disease was entirely confined to houses 2 and 5. Dr. Davies suspected the water-supply obtained from the wells on the premises, but failed to establish any proof of their having been contaminated. He then inquired about the milk-supply, but as the same milk was used in all the five houses, and only the inmates of 5 to 2 were attacked, that source of infection was eliminated. Dr. Davies, however, persevered in his inquiry, and presently learnt that the children were in the habit of playing in a picturesque dingle situated near the asylum, at the bottom of which runs a small stream of water fed by ditches containing the sewage of the several private houses on Ashley Down. Dr. Davies also learnt that fever has recently prevailed in these houses. The children, it appears, were in the habit of drinking the water when out for their afternoon rambles. Dr. Davies believes this to have been the original source of the mischief, and we quite agree with him, but we think that the subsequent extension of the disease in buildings Nos. 5 and 2, and the strict limitation of the fever to these houses points to some local defect in their sanitary arrangements; unless, of course, it can be shown that the inmates of these two houses alone had access to the contaminated water of the valley. What we think most likely to prove the case is that a certain number of children in house 2 and 5 received on a given day a dose of specifically contaminated water, and subsequently sickened with enteric fever. The disease thus introduced into the houses spread, owing to local sanitary defects in the buildings themselves, and as these defects were probably limited to these two buildings, the fever was not introduced into the other blocks.

The preventive measures that have been adopted by Dr. Davies are admirable, and will no doubt prove sufficient to check the extension of the disease in other quarters of the neighbourhood. With regard to the polluted streams that have caused the mischief, Dr. Davies, some months back, served notices on the owners of the houses on Ashley Down to abate the nuisance; but it was found that Ashley Down and its watershed lie above Bristol, in a separate sanitary district. The Bristol sewers are constructed only for the parliamentary borough of Bristol, and cannot take the sewage of outlying districts on a higher level, the result being that the sewage of the rapidly increasing suburban districts round Ashley Down is discharged into the open streams which pass through the town of Bristol to discharge itself into the harbour! To remedy this condition, Dr. Davies suggests that the sanitary authority of the district should be made coextensive with the watershed. It affords another instance of the absurdity of the present system of artificially dividing our sanitary authorities into urban and rural, when the interests of both are in so many cases identical.

In conclusion, we would comment on the extraordinary fact that, although enteric fever had been spreading rapidly in the orphanage for more than a month and 500 cases had sickened, no official intimation had been sent to the medical officer of health of the district, who did not learn of the outbreak till no less than five deaths had been reported by the registrar. This omission of a plain and obvious duty might have been followed by most disastrous consequences to the city of Bristol. We desire to express our sympathy with Mr. Müller during this trying time, and we sincerely hope that the public attention which has been drawn to this useful institution by the occurrence of the outbreak will secure for it increased support, and that Mr. Müller will be able to carry on his good work even more successfully than before.

THE LANCET.

LONDON: SATURDAY, AUGUST 7, 1875.

THE British Medical Association has this year held its meetings under exceptionally favourable circumstances. Although there was at first considerable objection raised by some of the Edinburgh authorities against holding the meeting in that city this year, and although there is still some resentment at the manner in which some of the leading members of the profession in Edinburgh have been treated by the Council of the Association, it must be confessed that at least the great majority of those who congregated in the Free Church Assembly Hall on Tuesday last were prepared to sink all personal considerations, and to contribute as far as possible to the success of the gathering. The traditions and the associations of the venerable city of Edinburgh and its illustrious University are calculated to inspire the most indifferent with a love of knowledge and a desire to increase his store, although the enthusiasm of most must have been damped when the President in his address pointed out the serious mistake they had made in not commencing and completing their educational career at the University with which he has so long and so honourably been identified.

The British Medical Association is certainly advancing in numbers, but, as one of the members suggested at the second general meeting, it may be doubted whether it is advancing in a corresponding ratio in influence and power. It was impossible to attend the general meetings and not to be struck with the want of control that the body of the members exercise over the management of the affairs of the Council. A great part of the business had been prepared in council, and offered cut and dried for acceptance at the general meetings of the Association, without any discussion, and even without any consideration. For instance, the report of the Council and the alterations in the bye-laws were accepted without being read by the few members who had not entirely subsided under the influence of the President's long address. It cannot surely be necessary to urge upon the members of the Association to insist on their right to supervise and superintend the working of the Council. The fullest confidence, it is true, must be reposed in the members of the Council; but if the great body of members are not allowed to discuss the official acts of their Council, or if they suffer themselves to accept and adopt whatever may be presented to them without previously ascertaining the nature of the proposition submitted to them, it is needless to say that they will soon lose their influence and independence, and that the Council alone will, in deed and in fact, become the political representatives of the British Medical Association, in which those members outside the Council have no voice or part, except the responsibility which attaches to them as members of the incorporated Association. The spirited protest offered by two or three of the more public-minded members of the Association will doubtless bear some fruit.

SOME eight or nine years ago we took occasion to comment somewhat extensively and categorically on certain faulty items of administration at St. Bartholomew's Hospital, and to point out how, as it appeared to us, much of this arose from a sort of antagonism in little matters between the lay and the medical staff. *The Times* and other contemporaries followed our example in this important instance, and the evils then complained of are now remedied. It is nearly two years since the attention of our readers was called to the same kind of abuses as existing at the Seamen's Hospital, and it was shown indubitably that, in consequence of the undue predominance of the lay element in the administration, the institution was suffering both in usefulness and prestige. But in this case, also, certain reforms were organised and adopted, and the result has been eminently satisfactory, both as regards the patients and the officers. We thought, indeed, that this unwise and absurd antagonism between lay and medical authorities in our large hospitals had ceased to exist, and that the position of our own cloth was now duly and properly acknowledged. But it is not so as yet. The administration of the so-called Royal hospitals is still, for all practical purposes, entrusted entirely to one lay official, denominated the treasurer. He lives, or is supposed to live, in the building, and, though assisted theoretically by a number of so-called almoners, his reign is purely autocratic. A question has very lately arisen at St. Thomas's—one of these Royal hospitals—that shows the working of the system. The medical and surgical staff, with the exception of the two senior members, came to the unanimous conclusion that it was desirable to change the hours for visiting their respective wards. For some years it has been the custom with all to make an early morning round, which, for obvious reasons in connexion with consulting practice, is found to be very inconvenient. The treasurer and almoners were communicated with, and a desire was expressed by the staff that the recognised hours of visiting might be fixed in the afternoon. We do not care to record the minute particulars of the discussion, but it suffices to say that the treasurer, having remarked that the change would be inconvenient to the nursing staff and to others concerned, announced that no alteration could be made. In arriving at this decision, Sir FRANCIS HICKS was doubtless influenced by the want of unity in the medical camp, the two elders standing aloof and doing nothing. The nursing element, too, is very strong at St. Thomas's; for, besides the regular nursing staff, so ably commanded by Mrs. WARDROPER, there are the probationers of the Nightingale School, whose convenience had doubtless to be consulted. Be this as it may, we have here a glaring result of the antiquated system of hospital management. A large body of professional men, including in their ranks some of the most eminent physicians and surgeons in London, are compelled, or rather permit themselves to be compelled, to adopt a course of action injurious to themselves and (if we except the convenience of some few persons of very secondary importance) of no practical benefit to any concerned. If precedents are wanted for the afternoon visit, we have only to

look at other hospitals. If we are told that eight o'clock in the morning is a specially convenient hour, we assert that at this hour neither patient, nurse, nor ward can be properly prepared for the doctor's visit. The washing, dressing, and breakfasts of the patients must be "scamped," particularly of course in the winter, to their great discomfort and detriment; and all who know anything about the necessary work to be done in a sick room or ward will agree that, before at all events half-past nine or ten o'clock, the physician or surgeon is an unwelcome visitor, emergencies excepted. And therefore, for these reasons alone, we believe that the staff, in the interests of their hospital clients, acted wisely in endeavouring to change the visiting hour. Without, however, canvassing their motives, it is enough just now to consider whether the highly skilled work continuously given by our profession in the wards of these large hospitals is to be wholly and entirely subordinated in fact to one lay official. There is work enough for that gentleman without such acts of supererogation and unnecessary annoyance. If we are rightly informed, the structural arrangements of the resident medical officers' quarters are neither palatial above nor by any means perfect below; and we may here in connexion therewith call attention to the fatal cases of typhoid recorded in THE LANCET of last week, no particulars as to which have yet appeared. The treasurer in these large institutions is appointed to look after the funds, to consult with the architect, surveyor, and engineer in order that the buildings and their surroundings may be properly kept up, to see that nothing is wanting to promote the comfort of the inmates, and to co-operate cordially with the medical staff. As we remarked some time ago in dealing with a kindred subject, no institution that depends for its very existence upon skilled professional work can be properly conducted unless the dignity and status of the professional workers are duly considered and supported. And so we recommend Sir FRANCIS HICKS to concentrate his great administrative powers upon finance, drains, bricks and mortar, and, following the worthy example of a fellow-treasurer in the City, to leave the doctors to do their own work in their own way.

DISEASES like small-pox, typhus, and typhoid fevers are attended with such marked symptoms, and are so frequently followed by a fatal issue, that they could not fail to arrest the attention of the most inobservant and excite the fears of the most heedless; but the case is very different when we come to study the history of granular disease of the conjunctiva and contagious ophthalmia. And yet outbreaks of these affections in schools and pauper institutions are not by any means infrequent occurrences. Whether we regard its insidious nature or the great difficulty of eradicating ophthalmia when once fairly established in a community, or the disastrous results by which it is followed, as far as the integrity of the vision is concerned, this subject is much more important than is commonly imagined. And the study of it does not lack practical advantages, for ophthalmia is in a great measure a preventable disease, its causes being mainly such as are attributable to defective hygiene and bad management. It is only of late years, moreover, that the nature of the disease has been properly appreciated. Under the head of conjunctivitis very dissimilar affections had long been grouped together. The disease, which was the great scourge of our own and other armies, which gave rise in the aggregate to an enormous amount of ineffectiveness and invaliding from those services, and caused a large number of unfortunate soldiers to be cast like beggars upon society in a disabled condition, has now in a great degree been overcome by improvements in barrack hygiene at home and foreign stations, especially at the latter. Every ophthalmia does not end in granular lids, nor are all granular lids the results of one and the same disease. The affection to which we are alluding was observed and described by military surgeons long before its features were thoroughly recognised by civil practitioners. This was partly to be attributed to the greater frequency of the disease in the army in past years, and the consequently greater familiarity of military surgeons with it; partly to the fact that in its initial stages it was rarely seen at ophthalmic institutions to which the sufferers applied when its characteristic phenomena had been merged in, or overlaid by, inflammatory conditions or their results. Now, however, the ophthalmic affection known as granular disease of the conjunctiva has been investigated by numerous observers in this country and abroad; its varieties and stages have been recognised, and much light has been thrown upon the causes of its prevalence in schools and other large overcrowded institutions. It was found by Dr. FRANK and Dr. MARSTON that the pellucid-looking granules to which the expressive name of "sago-grain" or "spawnlike" granulations was given, were common among soldiers placed under abnormally depressed or insanitary conditions; and it has since been established that these bodies had their anatomical seat in certain physiological follicular structures developed out of the sub-epithelial adenoid tissue of the conjunctiva. The presence or absence of these hypertrophied follicular growths in the conjunctival tissue may be regarded, moreover, as affording a delicate test of the sanitary state of a community. Their presence in man or animals, speaking generally, is indicative of hygienic deficiencies, like phenomena being induced in both under like surroundings. The fostering conditions are vitiations of a hot and moist atmosphere, from impalpable excreta of breath, skin, and body, consequent on imperfect ventilation. Mr. BRUDENELL CARTER, and many other observers, have made us familiar with the affections grouped together as contagious ophthalmia; and Mr. EDWARD NETTLESHIP, in two admirable papers in the *British and Foreign Medico-Chirurgical Review* for October, 1874, and January, 1875, has very exhaustively and intelligently discussed their symptoms and causes. Mr. NETTLESHIP points out that precisely the same combinations of conjunctival diseases are common among the poorer classes of this and other countries as are found in schools for the children of such people and in the ranks of the army. He thinks that granular ophthalmia had existed for an indefinitely long time in many European countries before the date of the Egyptian campaign. The presence of "sago-grain," or indeed any other form of granulation, indicates a vulnerability of the conjunctiva on exposure to relatively slight exciting causes of ophthalmia, and where such a condition exists we may expect a chronic ailment,

liable to frequent recurrences of superadded inflammation, but capable of being altogether overcome in time with care and vigilance. Authorities differ a good deal as to the influence of contagion as a cause of the spread of the disease. Mr. NETTLESHIP, for example, appears to agree with Mr. WELCH, the Assistant Professor of Pathology at Netley, who has written several excellent articles on the subject, in thinking that too much has been attributed by authors to contagion as a cause, and he dwells particularly on dampness of the atmosphere as a factor of the disease; but although it may be impossible to prevent a considerable number of the poorer classes from being affected with slight degrees of granular ophthalmia when occupying overcrowded dwellings in a damp climate, Mr. NETTLESHIP considers that its extensive prevalence in a severe degree shows a culpable neglect of hygienic rules among the body of persons so affected. When ophthalmia exists in any institution we may fairly assume that deficient stamina and ill-health are associated conditions, requiring attention to proper dieting, and that a "thinning out" of the occupants, with more air, more out-door exercise, and a greater attention to ablution and personal cleanliness on their parts, are required. It might be worth while to make some experimental inquiries into the condition of the atmosphere of institutions where ophthalmia prevails, especially as to its alkalinity and the amount of organic matter and moisture in it. And it is a practical hint, worthy of being borne in mind, that dust is frequently an exciting cause of ophthalmia, for we remember a case in which the surgeon of a regiment had recourse to a water-cart for watering the barrack-yard and parade-ground with manifest advantage.

THE Report of the Select Committee of the House of Commons on the subject of the Hampstead Hospital for Fever and Small-pox, to which we briefly drew attention last week, finally sets at rest this long-vexed question. It will be remembered that the scope of the inquiry of the Committee was strictly limited to one question—viz., the action of the Metropolitan Asylums Board in respect of the establishment of this hospital; and their report is therefore mainly confined to this question. It was not, in fact, the principal function of the Committee to inquire whether the existence of the hospital on its present site could be proved to have been prejudicial to the health of persons or the interests of property in the neighbourhood, nor by what means such evil effects might be counteracted or remedied, or whether they were of such a nature as to necessitate the removal of the hospital; and although a large amount of evidence was gone into on these questions, the Committee appear to have framed their report from the strictly legal view of their powers, and to have limited themselves to the question of whether the managers of the Asylums Board had acted within their right in placing and maintaining the hospital in its present situation. It need hardly be said that the *onus probandi* lay with the opponents of the hospital, and that from this point of view any proof of evil results incidentally arising, or due to the action of others, was of no value as showing that the Board had acted in opposition to, or in violation of, the powers conferred upon them. And taking this strictly legal view of the case, the Committee, or rather the majority of them, were obviously averse from fettering the Board in the exercise of powers which have in the main been used with discretion and for the public benefit. Had the question been discussed from a different point of view, it is possible that they might have come to a different conclusion.

It is, we think, to be regretted that the Select Committee do not discuss more fully in their report the evidence given with respect to the actual dangers which have arisen from the hospital, and that they have made no recommendations for the suppression of evils which they allow to have existed. It is satisfactory to observe that they report that "medical evidence on both sides abundantly shows that infectious hospitals are not of themselves necessarily a source of danger to the adjoining district; that the evils inseparable from their existence may, by good management and proper precautions, be reduced to a minimum." At the same time they allow "that some alarm was experienced and some risk encountered in the immediate neighbourhood of the asylum during the period of the small-pox epidemic; although they are of opinion that such mischiefs have been exaggerated, and that they are not of necessity incidental to the existence of the hospital, but are mainly due to the carlessness of persons entering or leaving the same, or to the imperfect control which follows overcrowding." But seeing that the existence of such evils was established, and that similar conditions will always exist, and must operate far more injuriously in this situation than in many others, it would have been more satisfactory if the Committee had suggested some means by which the dangers might be diminished. And so with regard to the ambulances, concerning which there is some very strong positive evidence of the spread of contagion, owing to the neglect of the most ordinary precautions, the Committee, whilst careful to state that the Asylums Board have no control over them, and that they may be so regulated as to be free from objection, fail entirely to suggest any regulations, or to state by whom the precautions are to be enforced. It will be seen that the medical evidence on both sides, and the conclusions of the Committee as to the real sources of danger, agree in the most striking manner with the conclusions of the inquiry of our Sanitary Commission, the report of which we published eight months ago.

With respect to the alternative site (No. 3), the Committee allow that it possesses some advantages, but they do not consider that these are sufficient to counterbalance its greater distance from the dense population of St. Pancras, and the fact of its situation on the extreme verge of the metropolitan district.

In concluding the report, the Committee state that it has been made clear that the Hampstead Hospital is not required for the purpose of a third permanent infectious hospital, and that all that is now contemplated is the completion of administrative offices in substantial materials. Had this been stated some time ago, much of the agitation would never have been aroused; but, as a matter of fact, the plans for the complete rebuilding of the hospital as soon as the Board could afford the outlay were long ago completed. But for some time, at any rate, it appears that the hospital

will only be used as an overflow hospital when the others are full.

The sole recommendation of the Committee appears to have been introduced with the view of preventing all such agitation in the future: it is that a compulsory power of purchase should be conferred on the Asylums Board, with corresponding power of compensation. This would doubtless be a great advantage if accompanied by sufficient safeguards, and might get rid of the suspicion of jobbery which has been necessarily associated with a more or less secret purchase from persons connected with the Board.

We hope that the result of the inquiry of the Committee will be to calm some of the excitement on the subject, and that the enormous outlay involved by the agitation and the inquiry will have brought about some good result. The somewhat extravagant laudations bestowed upon the Asylums Board will, we fear, rather mar the effect of the report, and will tend to support the idea of the Hampstead people that the Committee was not very fairly selected; but we trust they will accept the humiliation of defeat with as good a grace as possible, and make the best of the inevitable.

IT is satisfactory to observe that Lord SANDON, in replying to Mr. COWPER-TEMPLE'S question as to the course likely to be taken by the Government next session in regard to the admission of women to the medical profession, spoke with much reticence. "At this late period of the session they did not feel themselves to be in a position to consider this important subject; but they would give it their best attention, and next session they would be prepared to state whether, in their judgment, legislation was desirable or not." Nothing could be more cautious than this answer. Lord SANDON, in the course of his remarks, only did justice to the great care with which the Medical Council considered the subject which was referred to them by the Government. It was natural, perhaps, that Mr. COWPER-TEMPLE should give a somewhat partial view of the report of the General Medical Council on the subject, or rather that he should make the most of those suggestions of the Council which were in accordance with his own views. The General Medical Council, he says, made a suggestion which seemed very practical. They proposed not to interfere in any way with the existing examination or existing studies, but that a new and special examination should be provided for female students who might wish to prove their competence for admission to the Register. It cannot be too clearly remembered in what conditional form this suggestion of the Council was made. The qualifications are a most important part of the report to the Government. The report of the Council took very much the following shape:—The Medical Council are of opinion that the study and practice of medicine and surgery, instead of affording a field of exertion well fitted for women, do, on the contrary, present special difficulties which cannot be safely disregarded; but the Council are not prepared to say that women ought to be excluded from the profession. If it should appear to the Government and the Legislature expedient that women, who desire to obtain a legal status as medical practitioners in this country, should not be debarred from obtaining that status, the Council are of opinion that it should be under certain arrangements. Then follow the arrangements suggested by the Council; one of which—that mentioned by Mr. COWPER-TEMPLE—is to the effect that, in the interests of public order, the education and examinations of female students of medicine should be conducted entirely apart from those of male students.

It will be seen from this that Mr. COWPER TEMPLE gave to the House an imperfect view of the representation of this subject made to the Government by the General Medical Council. Mr. RUSSELL GURNEY also fell into much the same error in saying that the Council had expressed a decided opinion that women ought no longer to be excluded. They simply said that they are not prepared, notwithstanding the special difficulties in the way of women following medicine as a profession, to say that they should be excluded. They throw the whole responsibility of admitting them on the Government, on whom it should properly be thrown. We entirely approve of the Council's way of putting the matter, and we should not disapprove of the Government cautiously, and under the arrangements suggested, removing the legal obstacles to the admission of women. But nothing is to be gained by "disregarding the special difficulties" of this question. As Lord SANDON says, it is an important subject. If sex is to be no hindrance to the pursuit of the medical profession, it can be none to any other. In other words, the legislation which would admit women to medicine will mark a new era in social and political history, the effects of which may be more felt in other professions than in ours. It is in this large view that the question must be considered by statesmen, and they may well take the interval between two consecutive sessions for the purpose of such consideration. We are not afraid of being met in our profession by large numbers of competitors in the form of girl graduates. At any rate, we prefer to rely on the protection afforded by "special difficulties," rather than on that afforded by laws which have an ungracious look of exclusion.

Annotations.

"Ne quid nimis."

THE HEALTH OF ENGLISH WATERING-PLACES.

THE information now published once a year by the Registrar-General relating to the health of our principal English seaside and inland watering-places affords an indication of their relative sanitary condition which, if not scientifically accurate, has a well-defined value. The districts and subdistricts taken by the Registrar-General to represent the forty-six watering-places, treated of in his table, contained a population estimated in the middle of this year at little less than a million persons. The annual death-rate in this population during the second quarter of this year was 18·4 per 1000, against 18 in the same period of last year. This increase was less than the average increase which occurred throughout the country, due to the exceptional fatality from diseases of the respiratory organs. The death-rate from the principal zymotic diseases in these forty-six watering-places, which was equal to 2·2 per 1000 in the spring quarter of 1874, declined to 1·3 in the three months ending June last; this may be accepted as evidence of improved sanitary condition. The zymotic rate did not exceed 0·5 per 1000 in Bognor, Worthing, Sidmouth, Har-

rogate, Dover, Southend, Cheltenham, and Buxton; while it exceeded 3 per 1000 in Folkestone, Whitby, and Eastbourne. During the quarter ending June 30th last the fatal prevalence of whooping-cough caused an excessive zymotic rate in Eastbourne, Whitby, and Southport; while the high rate in Folkestone and Aberystwith was due to measles. It is open to discussion how far the comparative sanitary condition of watering-places may be judged from their general death-rates; the value, however, of information as to the relative fatality of zymotic disease in different communities for such a purpose can hardly be doubted.

THE CHEMISTRY OF THE BLOOD.

IN a recent communication to the Académie des Sciences, M. Gauthier describes a series of experiments on the influence of salt on the coagulation of the blood, an extension of the observations of Hewson, Davy, Dumas, &c. He found that the known effect in retarding coagulation was produced equally by chloride of potassium and by chloride of sodium, and that the maximum influence was obtained, in the case of the blood of the bullock, sheep, dog, and rabbit, when the proportion of the salt was 5 or 6 per cent. The retardation amounted to nearly twenty-four hours. A larger proportion had less effect. The corpuscles preserved their form, and even exhibited slight contraction, and, by simple filtration, could be separated from the plasma. The plasma could be preserved almost indefinitely as a clear liquid, coloured a slight rose tint. On the addition of water, which of course lessened the percentage of salt, it formed a firm and transparent coagulum. The plasma he found could be dried in a vacuum, and reduced to a greyish powder, which would redissolve in the same quantity of water, the resulting solution speedily coagulating on the addition of more water. The dried plasma did not lose its property by exposure for an hour to a temperature of 110° C.; its solution in water coagulated on dilution just as did the undried plasma. The coagulability of bullock's blood was unaffected, he found, by hydrocyanic acid, cyanide of potassium, arsenite of soda, strychnine, curara, or sulphuretted hydrogen; but the clot had less contractility, and yielded a smaller amount of serum, especially when arsenite of soda or cyanide of potassium had been added. M. Gauthier considers his experiments fatal to the idea that the coagulation of the blood is in any degree a vital act, a theory which had indeed already sufficiently vanished. He thinks that the red corpuscles yield to the serum carbonic acid, and that that is the determining cause of the coagulation. He does not appear to have made any special experiments to determine this point, which should easily be settled. The theory is hardly consistent with some of the known experimental facts.

AN "UNHEALTHY AREA."

To the Holborn District Board of Works belongs the honour of having taken perhaps the first active step towards applying the provisions of the Artisans' Dwellings Act to one of the "unhealthy areas" within the metropolis. Some days ago a deputation from the Holborn District Board of Works, as the local sanitary authority, attended at the Metropolitan Board of Works to inform that body that the medical officer of health of the Holborn district had officially reported that a considerable number of houses, courts, and alleys within an area bounded on the north by Portpool-lane, on the south by Holborn, on the east by Leather-lane, and on the west by Gray's-inn-road, are unfit for habitation, and dangerous to health. It was moreover stated that the construction of these houses and streets, as well as their condition, was such that the evils complained of could only be remedied by an improvement scheme for the re-arrangement and reconstruction of the streets and houses within the area. The Metropolitan Board is asked to pronounce this area as *unhealthy* within the meaning of the new Act, and to take such measures as may be necessary to enforce the provisions of the Act with reference to the area. The importance of this application may be judged when it is stated that the area referred to consists of nearly 14 acres, including no less than 24 courts and alleys in Gray's-inn-lane, which is now one of the most densely populated spots in London. About 230 houses and more than 1000 families would be temporarily displaced if the improvement scheme is sanctioned. It was incidentally mentioned that some of the wretched alleys within this area were only 4 ft. wide. The result of this attempt to put the provisions of the Artisans' Dwellings Act in operation will be watched with much interest.

THE LATE BISHOP THIRLWALL.

IT is not, we believe, generally known that this eminent and enlightened divine was remarkable in showing in his early childhood intellectual attainments of a very high order; and it is well to advert to this here, if only to show the falsity of the doctrine that such early ripening of the mind tends to weaken or impair the vigour of the intellect before the prime of life. The deceased prelate lived to the age of seventy-eight, retaining his highly-cultured intellect almost to the last, having enriched the world with many valuable productions, of which his History of Greece and translation of Niebuhr are perhaps the best known. Yet, when he was but "three years of age he was taught Latin, and at four read Greek with an ease and fluency which astonished all who heard him." Our quotation is from the preface (written by his father) to a volume of Essays and Poems published in 1809, and purporting to be written by Connop Thirlwall when but eleven years old. In this remarkable juvenile precocity the late Bishop of St. David's resembled his friend John Stuart Mill, who has recounted in his autobiography that he began to learn Greek when he was three years of age, and Latin when he was eight. Each has left his mark upon the age in which he lived, and each has thoroughly fulfilled the promise thus held out in his earliest childhood—the one became one of the foremost scholars of the time; the other one of the greatest of modern philosophers.

BROMIDE OF CAMPHOR.

A BRIEF monograph on the physiological and therapeutical properties of bromide of camphor—a powerful and somewhat uncertain remedy introduced to the notice of the profession chiefly by Bourneville and Lawson—has recently been published by M. Pathault, of Paris. Experiments on animals have shown that it reduces the number and force of the pulsations of the heart, and causes narrowing of the calibre of small arteries by its action on the vaso-motor centres—conclusions somewhat at variance with one another, since whilst it has an inhibitory effect on the central organs, it acts as a stimulant to the sympathetic in the peripheral portions of the vascular system. It is also stated to have a lowering influence on the rate of respirations and on the temperature of the body, the reduction in the latter respect being rapid and very marked (as much as 3° C. in an hour). Dr. Pathault has found that the elimination of the bromide by the urine begins within six hours after administration of the drug, and is not completed for two days. On the nervous centres it acts as a hypnotic, and also gives rise to clonic convulsions and muscular tremors. Dr. Pathault gives myographic tracings from frogs poisoned with the drug, and shows that they differ from those produced by strychnine (with which

it had been commonly compared) in resembling almost entirely the physiological tracing. The drug has been given in doses varying from four to sixty grains with variable results in cases of delirium tremens, insomnia, chorea, infantile convulsions, hysteria, epilepsy, neuralgia, and in some affections of the genito-urinary organs.

THE FREEDOM OF UNIVERSITY EDUCATION IN FRANCE.

FOR some time past the cry in this country has been, as regards medical education, "One-portal," but this end is still far from being attained. A change in the contrary direction is now advocated in France, and a multiplicity of portals may be created. It remains to be seen how far the free faculties of medicine will be able to compete with the five now existing, Paris, Montpelier, and Nancy being the old ones, Lyons and Toulouse those recently and officially instituted. We know that in this country there is a wide difference between certain schools of medicine and certain licensing bodies; the same distinctions will probably spring up in France when free faculties are founded in various parts of the land. Judging from the past, no great advantage will be derived from private undertakings of this nature. The promoters will be anxious to get pupils and disposed to make the obtaining of diplomas as easy as possible. Such was, in fact, the case in France in former times—namely, before 1792. At that period there were seventeen faculties, of which seven only had any, and merely local, importance. Good teaching was only found in Paris and Montpelier, and when any doctor of other faculties wished to practise in Paris, he was obliged to undergo a fresh examination in that capital. The provincial faculties were held in so little honour that the time spent in them counted only half when the student repaired to Paris. These provincial faculties competed with each other who should grant diplomas on the lowest terms, and it may be guessed whether the rejections were frequent. It is to be hoped that such a state of things will not be reverted to.

HEALTH OF KENSINGTON.

DR. T. ORME DUDFIELD, medical officer of health, has just issued a Report on the Health of Kensington for the four weeks from June 27th to July 24th, 1875, to which is added a special report on the subject of scarlet fever. The deaths from this disease were 11 in number, or 5 above the corrected average during the last 10 years. With one exception, all the fatal cases occurred in children between the ages of three and nine years, and in streets wholly inhabited by the poorer classes. Alluding to the disinclination of the parents of affected children to report the circumstances, and to other causes of difficulty in procuring information of fresh outbreaks, Dr. Dudfield refers to a fatal case that had been attended by a non-qualified practitioner. The child died at the end of the second week, and the existence of scarlet fever in the house only became known on the registration of the death. The two rooms occupied by the family contained seven persons. Successively the father and two children contracted the disease, and were removed to hospital. The rooms and clothing were disinfected, and the mother and two remaining children were reluctantly compelled to leave the house; but no sooner had they done so than the elder child fell sick, and was sent to hospital. On the day following the burial of the deceased child another family of nine persons left the house. They have been traced, and two children found to be ill. These have been isolated and, as far as practicable, separated from the rest of the family. Among the requirements in sanitary legislation, Dr. Dudfield thinks that none is more needed than power to provide quarantine for the apparently healthy members of poor families in which infectious disease has broken out. From inquiries among the medical practitioners resident in Kensington and other sources of information, Dr. Dudfield concludes that scarlatina is not generally prevalent, that it has not shown a tendency thus far to spread widely, and that the rumours in regard to the fatality of the disease have been, to say the least, much exaggerated.

WHAT IS THE VALUE OF A MEDICAL OFFICER OF HEALTH?

IN a health-resort like Leamington we should at least expect to find a proper value put upon everything appertaining to its sanitary condition and organisation. At a recent meeting of the Town Council, however, a discussion took place on the subject of the reappointment of the medical officer of health to the borough which shows that at least some of the members have a very inadequate idea of the duties which now devolve upon the medical officer of a borough like Leamington. It appears that Mr. Baly, of Warwick, has satisfactorily filled the post of medical officer of health to the borough of Leamington for two years, at an annual salary of £50. Finding, however, that the duties of the post had considerably increased of late, Mr. Baly, in offering himself for re-election, asked for a larger stipend. It was accordingly proposed that the salary of the medical officer of health should be increased to £80. An amendment was proposed to the effect that the salary should be £70, and that Mr. Baly should also be appointed borough analyst, at £10 per annum. Mr. Baly, however, declined this appointment. Another member then expressed his opinion that the increase from £50 to £80 was too large, and proposed that the salary should be fixed at £60. To the credit, however, of the Town Council, the original motion was carried; and we cannot but think that a town like Leamington, with little short of 25,000 inhabitants, is to be congratulated on securing an efficient medical officer of health for £80 per annum. The health of Leamington has of late been very satisfactory, as the annual death-rate from all causes during the three months ending June last did not exceed 16·9 per 1000, and the rate from zymotic diseases was as low as 1·0 per 1000.

MOLLUSCUM CONTAGIOSUM.

THIS interesting and by no means infrequent skin affection has long been debated by dermatologists. Some, as Hebra, deny its right to the term "contagious"; but the majority of writers, at least in this country, adduce ample evidence in favour of its being communicable by inoculation. Nor is there unanimity of opinion as to its pathological nature. Many hold it to be an affection of the sebaceous glands; others, as Virchow, not being able to detect any true fatty materials in the characteristic softened contents of the little growths, believe they arise rather from the hair-follicles. There are again others who, thinking to assimilate the contagiousness of the affection with its pathogenesis, affirm it to be parasitic, and have described certain large fungus-spores (molluscous bodies) in the contents of the growth. Dr. C. Boeck, of Christiania, in a recent paper (*Vierteljahresschr. für Dermat. u Syph.*, 1875, part i.), shows that none of these views are correct, but that the idea propounded by Retzius as to the seat of affection being in the rete Malpighii is the correct one. Retzius, however, thought the affection was parasitic, and here Boeck differs from him. In the paper from which we quote, the learned Norwegian dermatologist describes fully the histological characters of the molluscous tumour, and shows conclusively that the characteristic contents are formed by retrogressive changes

occurring in the cells of the deep layer of the epidermis, the so-called "molluscous bodies" being nothing else than modified epidermal cells swollen and altered by peculiar refractile substance, neither of fatty nor of lardaceous nature. He has never found this change in other conditions, as in comedones or acne pustules, but it is constantly present in this disease; the contagious property of which, he thinks, may be explained either by the self-multiplication of the diseased cells when transferred to other individuals or by their setting up, by "action of contact," similar changes in the part to which they are transferred.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE combined effect of the low temperature during February and March, and the more than usual variableness of the weather during April, caused the death-rate during the second quarter of this year to exceed the average. The annual rate of mortality during the three months ending June was equal to 21·9 per 1000, instead of 21·4 as in the corresponding quarters of the ten years 1865-74; it was, moreover, higher than in any spring quarter since that of 1866. The excess of deaths during last quarter was confined to those of infants aged under one year, and of persons over sixty years of age. The most satisfactory feature of the return is the decline of deaths from the principal zymotic diseases, which were equal to an annual rate of 2·6 per 1000; the rate from these diseases in the corresponding quarter of the five years 1870–74 was 3·1 per 1000. Although 4063 deaths in the three months were referred to scarlet fever, this number showed a further decline from those in the two preceding quarters, which were 8562 and 5050. The manufacturing and mining populations of Lancashire and Yorkshire again showed the highest death-rates from scarlet fever and other forms of zymotic disease; this is due in great measure to the large proportion of urban population which these counties contain. The health of Leeds and Sheffield has recently shown a marked improvement, but in many of the smaller manufacturing towns and mining villages of the north there is the strongest evidence of the need for sanitary reform. The zymotic rate, which was but 1·2 per 1000 in Suffolk and Hertfordshire, was 3·4 in Nottinghamshire, and 4·5 in the East Riding of Yorkshire. The fatality from typhus and enteric fever continues to decline in England and Wales, especially in large towns.

SUDDEN DEATH AFTER THORACENTESIS.

M. ERNEST BESNIER, physician to the St. Louis Hospital of Paris, brought before the Medical Society of the hospitals, the case of a lady aged forty-three, who was attacked with pleurisy and effusion. There was much weakness; the medical attendant became alarmed, and called M. Besnier in consultation. The patient was very fat, and as dyspnœa was considerable, it was resolved to evacuate the fluid. Everything was carefully prepared, the patient placed herself cheerfully on the side of the bed, and the trocar (No. 2 of Mathieu's apparatus) was introduced through a rather thick layer of fat. The escape did not occur at once, but the trocar being freed from obstruction, a horribly fetid pus flowed into the receptacle of the apparatus. From ten to twelve ounces had been obtained in about two or three minutes, when the patient was observed to turn deadly pale, and ceased to breathe. In spite of all the known means of resuscitation she could not be revived. M. Besnier, in the absence of a necropsy, thinks that the slight wound determined an *arrest of the heart*; and he pointed to the extremely rare occurrence of gangrenous pleuritic effusions.

COMPULSORY VACCINATION AND THE KEIGHLEY GUARDIANS.

THE Keighley guardians, who have been served with a writ of mandamus from the Court of Queen's Bench calling upon them to give directions to their vaccination officers to prosecute all persons within the union who refuse to have their children vaccinated, have also been served with a side-bar rule calling upon them to make a return to the mandamus within eight days. This was served upon two of the guardians, but the board has since refused, by votes of eight against six, to make a return. They also refused at a former meeting, to give directions to their vaccination officers to prosecute the defaulters. The fifteen or twenty thousand people who have the misfortune to have such guardians of the public health as this board, are entitled to the commiseration of all sensible communities. We shall watch with interest the contest between the Law Courts and the guardians. The question now is elevated into one of the respect due to law and to the law courts. It would serve the guardians but right to depose them from an office the duties of which they refuse to discharge. If other persons holding the same opinion should be chosen in their place, and the population should one day experience the due result of their stupidity, they will be entitled to little sympathy.

HOSPITAL SATURDAY.

THERE seems reason to hope that this institution will prove a little more equal to its purpose this year than it did last. The most gaudy and least defensible part of the Saturday arrangements—that of ladies standing with boxes in the streets supported by boys with bannerets—has so far been more productive than last year. Respectability and strength in this movement can only be secured by the skilful organisation of effective means for the reception of systematic payments from working men towards the support of the hospitals of London by which they and their families are so enormously advantaged. For the working men of London to give £5000 or £6000 to these institutions is altogether inadequate, and implies discredit either to them or to those who undertake to represent them in the collection. None will be more happy than we if the result of this year's Hospital Saturday should prove to be a worthy sum.

THE SANITARY CONDITION OF MAIDSTONE.

WE wish we could agree with Mr. Barham, the medical officer of health for Maidstone, who, in his last published monthly report relating to June, stated that on the whole the public health of the borough during that month might be considered "most satisfactory." After deducting three deaths that occurred in the County Lunatic Asylum, the deaths in the town during June were 37; of which 6 resulted from scarlet fever, 2 from measles, and 1 each from small-pox and enteric fever. Thus 27 per cent. of the deaths resulted from the principal zymotic diseases; which is hardly consonant with a satisfactory condition of health, although it is stated that the annual death-rate from all causes during the month did not exceed 18 per 1000. It appears that the deaths in Maidstone during May had been 60, and the decline to 37 deaths in June; which constitutes, perhaps, the only satisfactory feature in the June report, the fatal cases of scarlet fever having decreased from 9 in May to 6 in June. This disease was described by Mr. Barham, in his June report, as being prevalent throughout the town, although in a mild form; and enteric fever is also described as considerably prevalent. The medical officer states that the "stowage of manure and rags has much increased in the town within the last few years, and

that he has received frequent complaints of the smell arising therefrom." We cannot agree with his opinion that, where this stowage takes place in spaces "well open and exposed to all winds, it cannot come under the denomination of a nuisance injurious to health." This unsound decision affords but poor satisfaction to those who are being poisoned by the stench from these manure stores. We shall be very glad to hear that the health of Maidstone shows an improvement upon what its health officer describes as its present "most satisfactory" condition.

LUNACY.

THE Twenty-ninth Annual Report of the Commissioners in Lunacy, which has recently appeared, shows that at the beginning of the current year 63,793 persons were registered in England and Wales as being of unsound mind, an increase of 1766 as compared with the previous year. In the course of the last seventeen years insane paupers have increased from 16·14 to 23·55 per 10,000 of the population, and private patients from 2·53 to 3·09 per 10,000. The Commissioners remark that a large proportion of patients in the county and borough asylums consists of chronic cases, "which might be adequately provided for in well-organised workhouse wards." Remarks are also made as to the difficulty that exists in inducing boards of guardians and medical officers to carry out the improved dietary scale for imbeciles and lunatics recommended by the Board.

The percentage of recoveries of the insane in the county and borough asylums of England is 37·90 per cent. In the provincial licensed houses the average for the last year was 29·86 per cent.

OVERCROWDING AT LIVERPOOL.

DR. TRENCH, medical officer of health for Liverpool, has presented to the corporation of that town a valuable report as to the means that should be adopted to carry out effectually the provisions of the Artisans' Dwelling Act. Liverpool was quoted by the Home Secretary in introducing the Bill as one of the towns specially requiring reformation, in that it contains a vast number of close courts, with cellar or underground habitations, and small houses placed back-to-back, nearly all of which are entirely unfit for human habitation. Dr. Trench does not, however, recommend wholesale demolition, inasmuch as such a plan would, until new houses were constructed, force decent families to leave small, self-contained houses, even in badly-constructed courts, "to seek shelter and herd with the improvident and vicious in those dens of misery in the low sublet districts of the town." Subletting appears to be one great evil at Liverpool, leading to all sorts of indecency, as one of the necessary results of overcrowding.

TRINIDAD.

THE Trinidad Medical Board lately presented a very graceful and complimentary address to Thomas Murray, Esq., Doctor of Medicine of Edinburgh, and member of the Trinidad Medical Board, on the occasion of his completing fifty-five years of arduous practice in his native island. We gladly join our congratulations to those of the Trinidad Board on a feat so creditable as that of fifty-five years of honourable practice. Dr. Murray responded to the address in very beautiful and cordial words, and spoke of the better prospects of the profession in Trinidad, owing to the increased encouragement offered by successive Governors. Another great improvement, he said, is the appointment, on its present footing, of a Surgeon-General, who forms a tie between the Government and the profession.

ABSORPTION THROUGH THE SKIN.

WOLKENSTEIN, from experiments made with frogs, cats, rabbits, and mice, finds—1. That the skin is permeable to dilute but not to concentrated watery solutions. 2. An increase in the temperature of the solution augments the absorptive capacity of the skin; and, in fact, the amount of fluid absorbed stands *in limine* in direct relation to its temperature. 3. In young animals the skin absorbs better and more quickly than in old animals of the same species. 4. Hair and wool interfere with the rapidity of absorption. 5. A few alkaloids are capable of being absorbed and giving rise to the peculiar symptoms of their toxic influence.

THE report of the Board of Management of the Huddersfield Infirmary, read at the annual meeting of the governors of the institution last week, was of a satisfactory character, financially and otherwise. The balance-sheet showed an increase of £730 in the receipts as compared with last year, the total income being some £160 over the expenditure. A very welcome gift from Mr. G. Brooke was announced, in the shape of a set of medicated baths—a remedial accessory the need of which is, we are glad to know, becoming very generally recognised by the managers of hospitals, as well as by those who are interested in the efficiency and completeness of these institutions. The Convalescent Home at Meltham, in connexion with the infirmary, appears also to be in a flourishing condition, 503 patients having participated in its benefits during the year, an increase of 119 over the number admitted within the previous twelve months.

THE action brought, in the Vice-Chancellor's Court, by Mr. Hope, V.C., against the Romford Local Board for non-fulfilment of contract with regard to the sewage of the town, has resulted in a compromise to refer the case to Sir J. Bazalgette, the engineer of the Metropolitan Board of Works, to report to the Court, and say whether the works as they then existed were sufficient to deliver to the plaintiff all the sewage of the town of Romford, or such part thereof as should fall by gravitation into the outfall sewer which, on the 16th of May, 1870, conducted the sewage into tanks constructed on the farm, in the lease of that date mentioned, and, if not, whether anything and what ought to be done or left undone to give him such benefit.

IN London last week 2362 births and 1422 deaths were registered. The former exceeded by 106, whereas the latter were 388 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two preceding weeks had been equal to 22·4 and 22·3 per 1000, further declined to 21·5. The rate was 21 per 1000 in the west, 21 in the north, 20 in the central, 20 in the east, and 24 in the south groups of districts. The deaths included 1 from small-pox, 44 from measles, 87 from scarlet-fever, 6 from diphtheria, 63 from whooping-cough, 23 from different forms of fever, and 137 from diarrhœa.

IN a report to the Liverpool Health Committee it was stated that 226 deaths were registered in the borough last week, showing the large decrease of 120 compared with the corresponding week of last year. The deaths from zymotic diseases numbered 53, being 71 below the average. Altogether, the health of the town is at the present time in an extremely satisfactory condition.

SURGEON-MAJOR ALDER, who was charged with the murder of Lieutenant Walker at Fort Hubberston, having been tried at the Pembrokeshire Assizes, has been acquitted on the ground of insufficient evidence.

In consequence of the nuisance caused by cargoes of condemned fish being sent down the river in barges, and so polluting the atmosphere on the river and about the banks, the Corporation of London, as the sanitary authority of the port, have issued a special official notice on the subject, requesting all persons interested to give immediate information to the medical officer of health, at the Port Sanitary Offices at Deptford, in order that these foul cargoes may be seized and destroyed under his supervision.

The Local Board of Sevenoaks had a meeting on Saturday to consider a report from Dr. Baylis, the sanitary inspector, as to the condition of the town. Dr. Baylis stated that forty cases of fever had come under his notice, and two new cases had just been reported to him. The fever arose from the existence of cesspools and the bad construction and filthy condition of certain buildings. He recommended the extensive use of disinfectants, which the board ordered to be supplied as required.

Meteorological statistics show that the month of July was unusually cold and wet. The mean temperature at the Royal Observatory, Greenwich, was 59 deg., and 2·6 deg. below the average July temperature in 103 years. The amount of rain in the month was 5·3 inches, measured on sixteen days, which exceeded the average rainfall of July in 59 years by 2·8 inches. The rainfall of the first seven months of this year amounted to 15·1 inches, and was 1·8 inches above the average.

The bust of Dr. Hughes Bennett, in white marble, was formally presented to the Senate of the University of Edinburgh on Monday, immediately after the ceremony of "capping," in the presence of a large assemblage of distinguished visitors and professors and officers of the University.

In the House of Lords on Tuesday the Commons' amendments to the Lords' amendments of the Public Health Bill were agreed to, and their lordships resolved not to insist on any of their amendments which were distasteful to the lower House.

The death, at Paris, is announced of Dr. Marchi, one of the most celebrated physicians of Italy, who saved the life of Prince Humbert, when attacked by dangerous illness about ten years back.

Sir Alexander Armstrong, K.C.B., Medical Director-General of the Navy, commenced this week his annual tour of inspection at Haslar and other naval hospitals.

We regret to announce the death, in his seventy-third year, of Mr. John Churchill, the medical publisher.

THE NEW FELLOWS OF THE COLLEGE OF PHYSICIANS.

At a meeting held last week, the following gentlemen were elected Fellows of the Royal College of Physicians of London:—

Adey, Charles Augustus, M.D. Edin., St. Leonard's.
Barder, George Foster, M.D. Aberd., Clifton.
Corfield, William Henry, M.D. Oxon., Bolton-row.
Falls, William Stewart, M.D. St. And., Bournemouth.
Fearnside, Henry, M.B. Lond., Preston.
Matterson, William, M.D. St. And., York.
Monckton, Stephen, M.D. Lond., Maidstone.
Montgomery, James Barclay, M.D. Glasg., Penzance.
Ord, William Miller, M.B. Lond., Brook-street.
Semple, Robert Hunter, M.D. St. And., Torrington-square.
Shepherd, Augustus Barke, M.B. Oxon., Seymour-street.
Thorne, Richard Thorne, M.B. Lond., Inverness-terrace.
Tuke, Daniel Hack, M.D. Heidelberg, Falmouth.

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The forty-third annual meeting of the British Medical Association has been held during the present week in the illustrious city of Edinburgh. The number of members who made their way to the University, the head-quarters of the Association, on the morning of the 3rd instant, was unusually large. At the University a reading and writing room, an inquiry office, post, telegraph, and cab offices, and refreshment-rooms—in fact, everything calculated to enhance the convenience and comfort of visitors—had been prepared. The local secretaries were Dr. J. Batty Tuke, Mr. John Chiene, Dr. McKendrick, and Dr. Bishop. At eleven o'clock the opening service was held in St. Giles's Church, which was filled to overcrowding. An appropriate sermon was preached from 1st Peter ii. 17., by the Rev. W. Lindsay Alexander, D.D., who eloquently discoursed on the honour which we owe to all classes and conditions of men. At one o'clock there was a private meeting of Committee of Council, and at half-past two a meeting of Council.

About three o'clock in the afternoon the members began to congregate in the Free Church Assembly Hall, in order to be present at the first general meeting, and to hear the President's address. When the President appeared, amidst tremendous cheering, at half-past three, the hall was full. The business was commenced by the retiring president, Dr. Copeman, of Norwich, who, in a brief speech, thanked the members of the Association for the honour they had conferred upon him by electing him president. Dr. Copeman then resigned the presidential chair to Sir Robert Christison, who was received with the loudest acclamations. A vote of thanks having been accorded to Dr. Copeman for the able and courteous manner in which he had filled the office of president, he was made a vice-president of the Association on the motion of Dr. Sibson.

Baillie Tawse, in the absence of the Lord Provost, in an able speech, welcomed the Association in the name of the City Corporation, the members of which were present in their official robes.

These preliminaries having been gone through, Sir Robert Christison delivered his address.

THE PRESIDENT'S ADDRESS.

After some words of welcome, and an expression of gratitude and thanks for being selected as president during the meetings of the present annual session, Sir Robert Christison took for the subject of his address—"What sound reason exists for a fundamental change in medical education and medical examinations?" Disclaiming all intention of undertaking to treat it methodically and in whole, he meant to view the question from a quarter whence it had not yet been looked at. "I propose," said the President, "to give you historically some insight into the school life of one of our chief seminaries of medical education, in the hope that there may be found in its history some safe guidance in the present somewhat wild struggles of our profession to improve itself, to redress what seems faulty, and to frame, if possible, a masterpiece of medical examination and precursory study. In singling out for this end the medical school within whose walls we are to be assembled, I do so from no vain-glorious pride in the school to which I have myself for many years belonged, but because—firstly, I know its history, constitution, and work best; secondly, being here, you will probably take some interest in a subject with which most of you are but slightly acquainted; and, thirdly, because it is most surely worth while to inquire in the present conjuncture into the causes which have led the medical department of the University of Edinburgh, situated in an outlying quarter of the kingdom, to become for wellnigh a century, with little interruption, the most populous medical school in the British Islands.

"The University was founded by James I. (of England) in 1582. In the following year, the Faculty of Arts was started at once by the teaching of six of the seven subjects now required for graduation in that faculty; and the Theological Faculty was instituted at the same time by the founding of a chair of Divinity. A Law Faculty was not

initiated till a few years after the commencement of last century; that of Medicine had its beginning in 1685, through the energy and influence of three of the most remarkable medical men of the day in Scotland—Sir Andrew Balfour, Sir Robert Sibbald, and Dr. Pitcairn.

"Botany seems to have been their first object. Fifteen years earlier Balfour and Sibbald created the rudiments of a botanic garden, one object of which expressly was to introduce into Scotland the cultivation of foreign plants yielding medicinal products, which, in those days of not easy intercourse among nations, were not readily got when wanted. Our modern Royal Botanic Garden of twenty-seven acres, too small for its 340 students, had its origin in 1670 in a little plot of ground close to Holyrood Palace, measuring forty feet square, in which, nevertheless, were reared no fewer than 900 plants. The site was soon transferred to a large garden, where now flourishes the City station of the North British Railway. But one relic survives in a fine yew now adorning the garden in charge of Dr. Balfour and Mr. Macnab, twice transplanted successfully after becoming a considerable tree, and proving its own age by the *modulus* of De Candolle, according to which it must be above two hundred years old. The success of the Physic Garden was so great, owing to the fostering care of its promoters and the ability of its first keeper, James Sutherland, originally a clever young gardener, that, in 1676, an Act of the Town Council of the city, then the founders and patrons of professorships, established in Sutherland's favour a Chair of Botany in the University. But, for some unknown reason, the Act was not given effect to, so that a second Act of Foundation became necessary to make him effectually a University Professor in 1695. In the meantime Sibbald had influence enough to obtain also is 1685 the establishment of a Chair of Medicine.

"It is a fact not unworthy of notice, as throwing some light on the early history of medical education in this country, that, in every other university of what is now the United Kingdom, there existed for a long period of years only a single professorship of Medicine. Oxford had its professor of Medicine first in 1535, and no other medical professor for nearly a century. Cambridge got its Chair of Medicine in 1540, and no other till 1702. Dublin began in the same way in 1637, without addition till 1783. Of the Scottish Universities, Glasgow was slow to undertake the teaching of medicine, its professorship of Medicine having been founded in 1713, of Anatomy in 1718, of no other branch till 1807. St. Andrews had its first professor of medicine in 1722. Singularly enough, the University of Aberdeen has the merit of having anticipated all others, even Oxford and Cambridge, and been the very foremost in the United Kingdom to possess a chair of Medicine. Under the name of Mediciner, King's College, Aberdeen, had a professor 'before 1522' (Calendar, 1875), probably so soon as 1505. In the younger Marischal College there was a professorship of Medicine in 1701, but no support to it till a chair of Chemistry was erected in 1793.

"Plainly, then, it was understood in all these universities for more than a century that one man was competent to educate students for the medical profession. Sir Robert Sibbald and his coadjutors were the means of establishing, for the first time in Britain, three professorships of Medicine in the University of Edinburgh. Thus they may have introduced the valuable novelty of dividing its special branches among special men. But it is not now known how they taught, or even that they did all teach. Their teaching, at all events, made no graduates; for there was no medical graduation in Edinburgh till 1726, forty years almost after their appointment.

"The University of Edinburgh was not the only theatre in which efforts were early made to institute medical education in the Scottish capital. The Royal College of Surgeons also appear to have given it encouragement. But the College of Surgeons never established a School of Anatomy and Surgery. I should add, perhaps, that lectureships, in default of professorships, were appointed for several branches of medicine by the Universities of Glasgow and Aberdeen; but not till last century was far advanced. In Edinburgh alone were the roots of a medical school, in the true sense of the word, fairly planted in its University so early as the end of the seventeenth century, and brought to maturity in the first quarter of the century following.

"The school of Sibbald and Pitcairn was but a beginning, and probably not very successful; but soon afterwards matters took the right direction towards a separation of subjects, by the establishment of a lectureship on Anatomy in 1705, and the foundation of a professorship of Chemistry in 1713. In fact, it was not till the appointment of Alexander Monro *primus* to be professor of anatomy in 1720, that the University School of Medicine put on a shapely form, and entered upon its career of prosperity.

"Monro has his place in history as one of the European anatomists of the last century. But anatomy was not his sole gift by any means. Highly educated, favoured by his conspicuous office, which he entered when only twenty-three, and bringing to the task he had set himself an intimate knowledge of the organisation of the schools of Paris and Leyden, he won the confidence of men of station and influence. He not only soon placed the University Medical School on a sound and prosperous footing, but likewise mainly created the Royal Infirmary. In the University he found ready to his hand a chair of Chemistry and a chair of Botany; there was also the old chair of Medicine, capable of being moulded into the fitting shape of Practice of Physic. Anatomy and surgery were his own province. In 1724 was added a chair of Theory of Physic, which then embraced physiology, pathology, and therapeutics. In 1726 midwifery was also provided for, and materia medica was early taught by the professor of botany in the winter, botany itself occupying his attention during the summer months. Thus the whole round of medical science and practice came to be skilfully partitioned, each subject being taught separately; surgery, too, by one of the six professors, and materia medica by another of them. This arrangement—extensive, complete, and harmonious for the times—was carried into effect very long before anything of the kind was attempted at any other university, or, indeed, so far as I can discover, in any other school of medicine in the United Kingdom. Several of these professorships have been subdivided since that time. But all branches were taught from the first, and the only new creations in the University have been those for natural history, medical jurisprudence, and clinical medicine and surgery. The first of these is a general rather than a medical chair. In the establishment of the three others, the University of Edinburgh took the lead by a long way of all other British schools, as it had done in the organisation of a school, complete, according to the times, immediately after 1720.

"I have said that Monro was mainly instrumental in originating the Edinburgh Royal Infirmary. In 1728 subscriptions enough had been got to set on foot next year a small hospital. A larger one having been subsequently built and gradually extended, a Royal charter of incorporation was obtained in 1736. Monro evidently had designed from the first that the hospital should be devoted not more to the cure of the sick poor than for the education of students of medicine. The culmination of the fabric, so far as education is concerned, was the inauguration of the teaching of clinical medicine in 1748 by Dr. John Rutherford, Professor of the Practice of Physic. The hospital managers espoused warmly the cause of clinical teaching. In consequence, Rutherford was joined ere long by some of his colleagues; and in 1756, as we find from the infirmary records, clinical instruction was given by Rutherford; Whytt, Professor of Theory of Physic; Cullen, then Professor of Chemistry; and Monro himself. The coalition of four such men in training up a medical school from its infancy was a mighty element of success. Priceless, too, was its own organisation, as fashioned by the genius of Monro." The President then went on to trace out the success of this new University School of Medicine from the time that Monro himself began his lectures on anatomy and surgery in 1720, with 57 pupils, up to the present date. So far as the relations of Ireland to the Medical School of Edinburgh is concerned, he said, it has accomplished the isolation aimed at by the Irish people in weightier matters: in medical education Home-Rule has been attained effectually.

The President then proceeded to inquire into the causes of the great prosperity of the University, the organisation of which has been so very different from the not less prosperous universities of England. From the leading particulars in the history of the medical department of the University during the last 150 years, he proceeded to draw attention to the inquiry proposed at the outset: Whether

this narrative may not yield some useful lessons to the many who, with praiseworthy zeal, have lately proposed to alter and innovate largely in medical education and medical examinations.

"I submit that the Edinburgh School of Medicine—as proved alike by the great afflux of students, and by the multitude of men of mark trained in it who have held a high professional place in all parts, and in all public medical offices, in the British dominions—has thus been so eminently successful, that its system deserves great consideration; perhaps for guiding other schools, but certainly in dealing with itself. Nevertheless, there are some essential parts of that system which the opinions of some recent reformers, if acted on, would abrogate or dangerously injure.

"Take, for example, the duration of the courses of lectures. The ordinance of the Universities' Commissioners of 1860, on medical education, which by statute has the force of an Act of Parliament, requires that the courses of instruction during the winter session shall extend to at least one hundred lectures, and during the much shorter summer session to fifty. But a late eminent authority, whose name, were I to mention it, would be received with universal high respect in his department, used to sneer at this regulation whenever it was spoken of, and held up his hands in horror at the idea of the poor student being compelled to listen to one hundred lectures in a session. Other men, taking more precise views of this subject, have urged that such full courses may be reduced to fifty, as sufficient at least for any branch except anatomy. It has even been propounded in print that some branches of medical instruction, which in Edinburgh are taught in one hundred lectures in winter, may be advantageously disposed of in thirty-five summer lectures in London and the English county schools. At length, one confident writer in a weekly journal made the discovery that it might be better if certain of these subjects were not lectured on at all; and in one sense of the question I am disposed to agree with him.

"It is true that these thorough reformers go further, and contemplate the substitution of practical teaching and home study for lectures. Reading, however, at the student's home forms an essential ingredient equally of both systems of tuition. It is scarcely necessary to say, that every student who means to profit fully by a course of lectures, possesses works of reference for enforcing, recalling, and expanding what he hears in the lecture-room. But reading cannot be advantageously substituted altogether for what he hears. The poet's maxim,

> 'Segnius irritant animum demissa per aures
> Quam quæ sunt oculis subjecta fidelibus,'

applies to the relative influence of the description and the exhibition of visible things or events, not to the respective effect of hearing and of reading about them. On the contrary, the theatre, the pulpit, and the bar prove familiarly to all how impressive are the words of a speaker compared with the words in a book.

"Moreover, in teaching the medical sciences, demonstration to the eye may generally be employed to aid demonstration through the ear. Our predecessors of last century seem not to have been so fully aware of this as we ourselves are. Anatomy, chemistry, botany, and natural history were indeed taught by them with that aid. But during my four years' course of study the professor of the practice of physic did not so much as once make use of a specimen, a drawing, a diagram, or a black board. So was it with his colleagues of clinical medicine, of physiology and pathology, and even of materia medica. It was not till my predecessor, Dr. Duncan, succeeded to this chair in 1821, that demonstration by specimens and experiment was added to lecturing. But now, in every branch of medical instruction, the eye is appealed to as well as the ear. Wisdom is let in at both entrances, and at small additional expense of time, and no pecuniary cost to the student.

"In order that lectures may be attractive, however, they cannot be very brief. When too much curtailed, they must consist mainly of bald principles and naked facts enunciated with the scantiest garnishing, and thus all zest is lost. No observant lecturer can fail to notice that, so long as he is dealing with abstract principles, general statements, bare descriptions, and dry facts slightly associated, it is difficult to secure the attention of his students. It is quite different when his discourse is argumentative, when he supports his propositions by suitable instances, when his description of objects is made clearly diagnostic by comparison with others, and, above all, when he is under no restraint in the copiousness of illustration by examples. The attention of his hearers is then fixed, and if he can prop up a conclusion by a well-chosen, telling case of his own, all heads are raised and all ears on the alert to take in his information. This blending of general statements with richness of illustration it was which constituted the charm of some of the lecturers in my younger days, and eminently of Dr. James Gregory, Professor of the Practice of Physic. Gregory was the most captivating lecturer I ever heard. His course of a hundred and twenty lectures was attended to the last day with great regularity by classes of from three hundred to three hundred and sixty students. Every one acquainted with the history of British medicine during the present century knows how powerful an impression Gregory made on medical practice throughout the whole British dominions. Right or wrong, he was the apostle of bloodletting, which stood the test of half a century's experience. The sway of his doctrines was owing entirely to his lectures, and to the publications of his pupils, for he himself never published on any branch of the practice of medicine. But would Gregory have found scope for his rare talent in the *beau ideal* course of fifty or eighty lectures—the hobby of present-day reformers? Let Gregory himself supply the answer. In his annual course of a hundred and twenty lectures he overtook only two-thirds of his subject.

"Those teachers and guardians of youth who lament, and those students who complain, that it is found irksome to attend lectures at the schools where the very short courses of instruction I refer to have been adopted, will now probably understand the cause. Some teachers at these schools have themselves made the discovery. It will probably be also understood why, when tuition by systematic lectures has been made so very barren on any subject, I agree with those most radical of all reformers that it is well to have on that subject no systematic lectures at all.

"Practical instruction cannot take the place of systematic instruction. For, in the first place, the latter is an essential preliminary to the former; and, secondly, the student's period of study is much too short for his acquiring an extensive acquaintance with the great leading details of all the required subjects by practical study.

"Systematic instruction is an essential preparation for practical study. This no man, I presume, will deny. But the more thorough the systematic instruction, the better the preparation. Take anatomy for example. Practical anatomy is studied longer and more thoroughly by the general mass of students now than fifty years ago. But I have never understood that the systematic teaching of it has been curtailed on that account at any of the great medical schools. On the contrary, in consequence of the extension of anatomical science, what is called 'anatomical demonstrations'—which formerly meant daily demonstration by the professor or his 'demonstrator' of what had been done during the day by each dissector in the practical rooms—has been converted at several schools into an additional course of systematic lectures on anatomy, carried on at a second hour. How far ought other branches of medical education to be treated differently? What of chemistry, for instance, the importance of which to medical science and medical practice is becoming more and more apparent every year? Chemistry was the next science after anatomy which was taught effectively in this University in the practical way. For many years Dr. Hope offered his students no opportunity of practical instruction. At length, in 1823, the teaching of practical chemistry was begun by his assistant, Dr. Anderson; it has been improved, and ever since continued, by Anderson's successors in office; it has been long adopted by every extra-academical lecturer on chemistry here; and it was considered by the Universities' Commissioners of such value to the medical student that it was added by them in their Education Ordinance of 1860 to the curriculum of study for medical degrees. Dr. Hope, I have said, gave no opportunity for practical study. But, as I well know from personal experience, his course of 136 lectures on systematic chemistry was so complete, and so fully illustrated by never-failing experiments, that no diligent student ought to have found difficulty in taking up any branch of the subject practically, after learning the use and the handling of instruments and apparatus. I found none, at least, when subsequently at Paris

I embarked in what were then the highest objects of chemical research—the analysis of the gases, the proximate analysis of vegetable poisons and medicines, and the elementary analysis of nitrogenous organic bodies. No such thorough preparation, however, could have been attained by the brief systematic course of sixty or eighty lectures proposed by the practically-minded of the present day. The introduction of practical chemistry into the University qualifications for medical degrees was not the cause of the reduction of our winter session from six to five months; and I am much mistaken if that change has not been found to cramp the systematic instruction given by the Professor of Chemistry, to limit unduly the branches included in it, and to curtail the experimental illustrations of those which he is able to overtake. A third branch of medicine in which practical study is imperative on candidates for graduation in the University of Edinburgh is pharmacy. It is enjoined to be taken at the laboratory of a hospital, dispensary, or private practitioner, and it cannot now be studied in the University. But provision will soon be made for supplying that defect; and when it is made, the course of lectures on materia medica may be relieved and shortened by being confined chiefly to therapeutics. A fourth branch is midwifery, in which practical instruction may be taken at a hospital or dispensary, or by attending the private practice of a medical practitioner. But besides all these subjects, botany, physiology, pathology, and natural history have been successively made the subjects of practical instruction by their respective professors. In several of its branches, surgery, too, is now taught practically, and there is no reason why medical jurisprudence should not be taught in like manner. Great success has attended such instruction in every branch of medicine in which it has been undertaken—in none more than in physiology. Hence some have proposed to add several of these newer practical studies to the imperative list, especially physiology and pathology.

"But now we meet in the face a formidable question. Trusting to found on the theory of practical education a mode of escape from one horn of a dilemma, are we about to rush on another precisely similar? Can the usual time-limit of medical study admit of such diversified practical training? Systematic instruction cannot be given up, were it merely as preliminary to practical instruction, and it cannot be given in short space. Whatever extent of it be held to be necessary, no part of it can be curtailed without practical instruction being extended to supply the loss. But for every detail thus withdrawn from the former, treble or even quadruple the time is required to teach it by the latter method. This will be acknowledged by all who are conversant with both—by teacher as well as by pupil. In the same space of time the lecturer can go over in his systematic course, even with the addition of demonstrations and experiments, three or four times the amount of details which the student can overtake in any plan of practical study. It is a mere hallucination, then, to suppose that the latter can materially take the place of systematic lectures. In every way in which we look at the question with the eye of experience, it will be seen that in a sound system of medical instruction systematic teaching must be the principal means, and practical teaching ancillary only. Care must therefore be taken that the practical method be not extended beyond due bounds. These considerations lead me to observe that many labour under an exaggerated and mistaken idea of the extent to which the medical sciences can be acquired by the practical method in the course of a student's curriculum of study. In fact, some teachers, in consequence of the same mistake, have erred, I think, as to the kind of practical instruction which they have endeavoured to impart. Some aim at covering a large extent of ground, and thus making the student acquainted practically with a great variety of objects. By this way the knowledge acquired is necessarily superficial, and consequently fugitive, besides proving not very serviceable afterwards in actual practice. Others, confining the attention to comparatively few objects, teach familiarity with instruments and other means of research, the principles of scientific investigation, and skill and invention in inquiry. The information so gained, though limited as to objects, is precise, profound, lasting, and such as enables the pupil to study any other similar subject with accuracy and success. The one method crams the student with surface knowledge, much of which he soon forgets. The other trains him to research, and teaches him, in short, how best to acquire knowledge for himself. The latter surely is the real object of school instruction. But it is apt to be lost sight of by modern theorists, who seem to think that the purpose of education at a medical school is to furnish the student with all the professional knowledge he needs, and to turn him out an accomplished physician or surgeon. I wish practical teachers would turn their minds to this question. For my part, I entertain considerable doubts of the real utility of those courses of practical instruction which aim at embracing a great variety of matter. In regard to practical chemistry, for example, I well remember the time when a highly popular course of the kind was given in this school, and that on one occasion I found my four clinical clerks, who had all gone through it, were unable to make a filter, to pour a fluid securely into it, or to boil wine with confidence in a glass tube. The conclusion I come to on the whole question of medical training is that the most efficient system consists of full systematic lectures and auxiliary practical instruction carefully chosen and limited. Such has been the system pursued in the University of Edinburgh, and hitherto the University of Edinburgh has been eminently successful.

"I have purposely reserved for separate notice the most important of all practical training, clinical study, because it is somewhat peculiarly circumstanced. Clinical teaching ought to comprise lectures, demonstration of actual cases, and examination on them. This constitutes practical instruction auxiliary to the systematic courses on the practice of physic and practice of surgery. But by practical clinical instruction is meant something more: every student ought also to acquire such experience as is gained in the office of clinical clerk in an hospital. Unless he has served as clinical clerk, or in a similar capacity in a dispensary or with a private practitioner, so as to have been brought into close contact with cases of disease, and in a position of some responsibility for the knowledge and treatment, he is not yet prepared for entering upon independent medical practice. Herein lay a great mistake of our predecessors. The majority of their graduates and licentiates were sent forth into independent practice, possessing no more practical acquaintance with disease than was got from clinical lectures, and, indeed, at most schools in the kingdom, with no more than they could pick up for themselves by what was aptly called 'walking the hospitals'—that is, looking on as they best could, without lectures, beside demonstrations, examination on cases, or any other help or guidance whatsoever. But now the rule, at least at this University, is for the graduate, if not already trained as clinical clerk, to seek that or some similar opportunity of thorough practical study before taking advantage of his newly-acquired legal right to settle in independent practice. If this rule be so general—almost, indeed, universal, as I suppose it to be, here at least, there is, perhaps, no call to enforce it by educational statute; and there is the serious objection to a statutory rule, that it is one very difficult to define and enforce without inflicting frequent hardship—owing to the impediment which is sure to start up in the way of all important additions to medical study, the limit of time allowable for a student's education. But if this, the most valuable of all his practical training, is to be demanded of all medical aspirants, it may be effected in one of two ways. The first mode is to induce the student to commence his professional studies, not with the month of October or November, as is usual, but in the beginning of the previous May, so as to take his Botany and Natural History before commencing his statutory four years' curriculum. It is gratifying to find that very many of the students of the University of Edinburgh are now doing so of their own accord. If they could add to these Chemistry in the preceding winter of preliminary education, so much the better. The four usual 'Anni Medici' would thus escape crowding; and the last six months might be left nearly clear for a clinical clerkship. This clear half-year could be obtained with certainty, if the present courses of lectures were better co-ordinated. Some are too long; several are too short; and at least two, Anatomy and Practice of Physic, are much too short. But by altering the sessions, from a winter period of five or six months and a summer period of three months, to two equal periods of four months, with an interval of one month for holidays or graduation examinations, I am convinced that almost all our courses of lectures would be materially improved, none injured, and the concluding six months left free for clinical clerkships, or other practical training of the same kind.

Under the present system four years of study are rather too short a period. Under a different system they would generally suffice. But it would be said, why not lengthen the period of study at once to five years? This measure was a favourite one in the General Medical Council during the first years of its life. But no more has been heard of it since the following objection was mentioned. The additional year cannot be subtracted from the years for preliminary education, but must be added to the four professional years; and, therefore, licence or graduation must be postponed to the age of twenty-two. But if a man may join the Church, the Bar, or the Senate at twenty-one, why not the Profession of Medicine too, especially as many years must elapse before he can attain to remunerative practice. Moreover, a careful examination of the books of this University proves that, although of 200 graduates in two successive years, four-fifths took at least five years of medical study, and graduated at a greater age than twenty-one, the remaining fifth who graduated at twenty-one, after four years of study, comprised three-fourths of those who passed their trials with distinction. Why then should these forty young men be prevented from beginning professional life early, and thus be defrauded of the advantages of the talent with which they had been blessed by Providence? And why in the profession of medicine alone? Another way of securing the advantage of some such practical study as a clinical clerkship affords, is to require it to be taken, as I have said that a great proportion of the students of the Edinburgh school actually do take it—immediately after graduation or licence, and before settling in practice for themselves. In that case let it precede registration; for which purpose remove the present statutory prohibition against entering certain subordinate offices before being registered. But it may be said that there ought also to be a further examination. By all means. I think there is an insane rage for examinations at the present time. But there can be no great objection to a clinical examination at any period of life. Every new case of disease which a medical practitioner has to treat is a clinical examination to him. Of course a young man, who has just passed through the required training, and who professes himself competent to enter upon independent practice, may well be called on to prove his competency by examination—that is, by exemplifying what his practice is to be. Such examinations might be fitly conducted by any of the present examining boards. Or, if a Government pass be advisable, as many believe, to serve as a check on these boards, and for a greater surety to the public, there is here offered a simple and effectual opportunity for interposing a separate and independent board, to secure the sole object for which a conjunct board, or Government board—which are one and the same thing—can be reasonably demanded—viz., to see that a young man is competent to enter upon the practice of medicine independently on his own account.

"Thus I approach the last topic with which I propose to occupy your attention at the present time. It is one about which the general sense of this Association and my humble opinion may hitherto have been not much in accord. But I entertain hopes that the case may prove different before we part. For many years past there has been outcry in our Profession, and murmuring even among the general public, against a multiplicity, or even a plurality, of examining boards for licensing entrants into the medical profession. Many have seen, as they think, such evils in that system as even to have advocated the establishment of a single board to supersede, or at least to override, all those now existing. Out of this feeling has been engendered the scheme of a conjunct board or boards, to be made up of examiners selected from the existing boards, and whose province it should be to examine all candidates whomsoever, and necessarily either to supersede existing examinations, or to repeat and multiply them. At first measures of this kind were very popular—very much so with the General Medical Council, and not less so, I believe, with some men of note, members of the British Medical Association. For my part, however, I very early took quite a different view of the proposed revolution. There was no opportunity of stating in the General Council what could be said against it before my retirement from that body. But I have raised my warning voice since then in several other Councils, and also in correspondence. Whether from this cause, or more probably through the influence of calm reflection which time has allowed to all public bodies concerned, the result has been that every licensing board in Scotland is now opposed to the change; and in the two other divisions of the kingdom, where all boards seemed about to rush into one another's arms for the purpose of being conglomerated and individually extinguished, zeal has of late been greatly cooled in this direction, and there has arisen a prudent hesitation in coming to closer quarters. Let us then look a little into the whole matter with the aid of the light which time has thrown upon it. At a period not very distant some licensing examining bodies were too short-handed. Others were undoubtedly too facile. Corruption even was charged; with what justice it is needless now to inquire. To correct these faults was one of the well-understood objects of the Medical Act of 1858, and one of the duties of the Medical Council which that Act has founded. Has the Act been found to fall short of its purpose in this particular? Certainly not. The Council may have set about the work of reforming the examinations rather slowly, but they are not to be blamed on that account. They had much besides on their hands. They were too numerous to deliberate promptly. It was well that they should gain public confidence before approaching the most delicate of their tasks. Their powers were thought not clear enough, nor sufficiently direct for vigorous action. Nevertheless much good has been done in several directions; and now the Council appear to have set about the duty of controlling examining boards with determination. It is well that they have done so in the present crisis; for the results will supply, if I mistake not, valuable advice in the present conjuncture. I have gone carefully over the reports of the able inspectors who have finished this year's duty, and I find that they pronounce various examinations to be all but faultless—that they point out an important fault in the examination of one of the most powerful medical bodies in the kingdom, a fault which, I doubt not, will be at once mended—and that they declare one board so far behind in duty, that both the examination and the Board of Examiners must be remodelled. The Medical Council therefore now know that they can command the services of inspectors who will report to them the truth without fear or favour. The Council are also already made aware of insufficiency existing in some quarters. But have they power enough to correct? Hitherto they have carried all their other measures by persuasion merely. But if in the present matter persuasion fail, have they the power to employ force? Such power is given by statute; but it is roundabout. A charge must be laid against the accused board before the Privy Council, who may, or may not, confirm it and enforce the remedy. The statute has been thought in this respect too feeble. It must not, however, be treated as such until it is tested by actual trial, and the trial has not yet been made. If the statutory power prove too feeble when fairly tried—for example, against a powerful recalcitrant adversary—I see no reason why the Medical Council should not receive direct power to enforce its mandate, subject to appeal to the Privy Council. Such appeals are apt, indeed, to be costly. But, perhaps, so much the better; there will be no appeal by a board not quite satisfied of being in the right. But the Medical Council and the public now know, also, that no small number of the examining boards of the country are without fault. Therefore they can point to models from which defective boards may take example, nay, must do so. Therefore, too, they may say to Government and the public, and the members of this Association who have taken a strong and laudable interest in the reform of examinations—'In regard to the former bodies, there is no call for any legislative interference. In respect to others, we know what is to be done with them; let us try whether we can do it with the powers already entrusted to us; it is probable that no further legislative aid will be required.' This is a plain and reasonable policy. Surely it is right that the Medical Council be not disturbed in their present efforts and perpetually paralysed at the opening of every Parliamentary session by new Medical Bills, founded on mere theory, proposing to revolutionise and overturn what has gradually arisen as adapting itself to the wants and wishes of the nation. One condition, however, must be admitted to be indispensable. As every physician ought to be educated in surgery, and every surgeon in physic, so every board, which singly qualifies a man for registration, must possess the power and the means of examining on all required subjects, medical and surgical. The Universities, with few exceptions, enjoy this advantage. The three corporate colleges in Scotland have found no difficulty in acquiring it by combining together. In London, however, the medical corporations have hitherto been unable to unite, or mutually lend examiners, for reasons the cogency of which it is not easy to comprehend, but which assuredly ought to be put an end to one way or another. If these bodies cannot combine, why should they not obtain by charter the right to do, each of them, that which the Edinburgh University lately accom-

plished without either difficulty or delay under its new constitution granted by Parliament in 1858? It possessed twelve Professors specially qualified to examine, each on a special subject, and in addition three examiners from without, who examined on any of the subjects. But the Professors saw the advantage of having twelve non-professorial examiners, specially qualified like themselves on each of the twelve subjects of examination, to do duty *pari passu* with themselves. In two or three months the legal forms were gone through, and twelve first-class men obtained—five in Edinburgh, two in the Scottish counties, five in England, and three of these in London. You will now understand what I meant by the 'elasticity' of this University. There is, in fact, scarcely any right and wise thing wanted which may not be attained under its constitution, provided the cost be forthcoming; and that, too, is seldom long in being supplied. Why should not each of the important Royal Colleges of England possess, for their efficiency, the same power with the University of Edinburgh, of borrowing all round them, completing their examinations, and each qualifying singly for admission to the register in the fullest sense of a practitioner entitled to practise according to his education? Why not indeed, but for mutual jealousy and the antiquated fondness for keeping up a bygone distinction—a distinction which really exists no longer, except for the limited few who stand at the top of each branch of our profession. Nevertheless, these bodies are said to countenance at the same time a complicated project of conjunction for themselves, and unhappily for all their sisters too, and for all the Universities likewise, which threatens to imperil the prosperity of all, and the very existence of several of them. This is the erection of a joint examining board for the whole kingdom. Much has been said in Council and in print in praise of some such measure. But what has been uttered hitherto has been addressed to the general question only; and no one, so far I am aware, has looked either to details or consequences. Those who do so will not be much enamoured with it. A favourite idea with many is that there should be, for entrance into the medical profession, what they call a 'one portal system,' a single-door scheme, a single examining board, to subject every candidate in the kingdom to one uniform system of examination. In England no one has yet done more than announce the theory, which, however, has met with a favourable reception. From Ireland there was sent over a few years ago a scheme of the kind, which went so far as to recommend an examining board of twelve, and for each a fee of ten guineas a day. There are, however, ten subjects of examination, for each of which we must have two examiners sitting constantly together, or twenty in all. Let us see what will be the amount of their work. From a return, for which I am indebted to the kindness of Dr. Hawkins, registrar of the General Council, the annual additions to the register may be taken in round numbers, for the last three years, at 900. To these may be added 60 for those who, going to the colonies or for other reasons, do not require to register. On calculating the returns of all examinations for two years, as annually published by the General Medical Council, 240 rejections must be added, in order to make up the total number of persons to be annually examined by this single board. Long experience warrants the conclusion that the oral examination of 1200 candidates will occupy each examiner at least 400 hours. Experience also teaches that, for a moderate continuity of time, four hours of such monotonous uninstructive occupation are as great a strain upon the human mind as most persons will sustain. Further, large experience shows that the setting, watching, perusing, and judging written examinations will take each member of the board 184 days, on the assumption that 200 candidates are set at work at one time; but as this sort of labour is of a more contemplative kind, we may ask each examiner to give eight hours a day to it. Thus his whole annual duty will occupy 124 days, so that, deducting Sundays and half-holiday Saturdays, he will be engaged, if continuously, for five entire months. As such lengthened absorption of time involves the surrender of almost every other ordinary professional object, and the members of such a board must be men of the first water in their several spheres, to secure public confidence the proposed remuneration will not prove so unreasonable as it might appear at first. The cost of salaries would thus consequently be 27,000*l.*; and secretary, clerks, halls, offices, and examination expenses would certainly raise the whole cost of the single board to 30,000*l.* annually. What return is to be got for all this inordinate outlay? In the first place, as the scheme charges the cost upon the candidate, each of them will have to pay at least 25*l.* for his examination. The candidate, at least in Scotland and Ireland, will be subjected to the additional expense of travelling a long distance to the seat of examination, which may be presumed to be destined to be London. Thirdly, one half of them will have to wait for their turn three, four, or five months after being ready for examination on completing their studies. Fourthly, all this trouble and expense are in addition to what are required for their degree from a University or their license from a corporation. Corporation licentiates, indeed, may be relieved of part of the expense, and all the superfluous annoyance of a double examination, by adopting the provision of a different joint scheme to be mentioned presently; which provision would make the single-door examination sufficient for obtaining also the license of any of the incorporated bodies. It will be seen by-and-bye whether the corporations can safely thus give up their own examinations. But in the meanwhile what about the Universities? The single-door examination, being the winding up of the general Medical Council's plan of medical study, which is avowedly a minimum, cannot be a major examination. If not also a minimum, it must at least be minor. The examination of the Universities, however, generally is, and must be made at all of them, a major examination; and the Universities cannot give it up for one which is lower. Thus would arise the absurd anomaly, that, after paying smartly in time and study for a high title obtained through a high examination, the University candidate would be called on to undergo another and minor examination, and to pay another large fee for the superfluity. Fifthly, it is unnecessary to add in the present place the risk of a single national board of examiners, conducting a minor examination, over all the kingdom, without rivalry, becoming the fountain of mediocrity in all things medical, in education, in professional qualifications, and in scientific advancement. This result of centralisation and loss of freedom was so luminously put by Mr. Lyon Playfair years ago in the House of Commons, in his speech on one of the great education questions, that few can have forgotten the deep impression which it made upon the country. So much or the candidate. The case of the examiner should also be cooked to. I presume this single door, or national board, like the General Medical Council, would consist of a half from England and a quarter each from Scotland and Ireland. Hence one-half of the members would have to pass annually almost half the year from home. I have not hitherto met with an examiner of some experience who did not find his duty in no long time irksome. A fortnight of such work four hours a-day would try the powers of most men of the stamp of which such a board ought to be composed, the duty is for the examiner so monotonous and so unimproving. Five continuous months of such mental torture would probably land half the examiners in a lunatic asylum. In order to meet some of these evils, it might perhaps be proposed that the work should be divided between two, three, or any other necessary number of similar boards. The cost would be the same, the labour would be endurable, and the convenience of candidates would be consulted. The expense to candidates, however, would remain the same, and the vexatious absurdity of a double examination. Moreover, what would become of the one-portal theory with more than one board? The written questions might be made the same for all, but not the appraisement of the answers. As for the oral examinations, it is evident that the differences could not be slight, and might be quite as great as now. Changing the examiners, and centralising their place, but leaving a plurality of boards, could tend but little towards uniformity of examinations. Such a scheme, in short, is no one-portal system at all; and it differs in no material respect, even in details, from the scheme of conjunct boards which has been for some time before the General Medical Council and the licensing bodies of the kingdom. According to that scheme, all the Universities and all the Corporations are to unite in forming three boards, one for each division of the kingdom. In England, however, the labours of a single board would be intolerable for the examiners; and their sittings would be too protracted for the reasonable convenience of candidates. In Ireland and in Scotland the duration of duty would be less, yet still too great; and in Scotland the hardship on candidates would be severely felt, because all the school-sessions come to an end at the same time, and consequently the candidates of one school, instead of being examined there at once, as now, would have to wait till the other schools set the examining board free. The work of such a conjunct board could not be done to the satisfaction of the schools and the country with less than three

or four sets of examiners for England, three for Scotland, and two for Ireland. This so-called conjunct scheme has therefore some disjunctions; and it has no alliance to the device of a single board. In order to escape as far as possible the absurdity of double examinations—one for license or graduation, and another for registration—a complex plan of equivalents and exceptions has been proposed under this scheme. The Corporations are to accept the examinations of the Conjunct Board for their licenses, and give up their own examinations altogether. The Conjunct Board is to receive as equivalent to to their own the University examinations on the fundamental medical sciences. The University examinations on practice, such as Physic, Surgery, Midwifery, Pathology, Therapeutics, Medical Jurisprudence, are not to exempt graduates from the examinations of the Conjunct Board on these subjects; but graduates so re-examined are to be let off easy in the matter of fees. Why University graduates should be exempted from the operation of the board in one class of subjects, and not in others, it is not very easy to perceive. The University examination is, or ought to be made, a major examination on every subject alike. Why a second, and minor, examination should be requisite for security of the public is to me at least a profound mystery. Another part of the conjunct scheme is that the candidate whose aim is a Corporation licence shall receive one on passing his trials. For this favour the Corporations are to divide among them a large proportion of the fees. That most ticklish of all points, their respective shares, has wisely not been mooted hitherto. But this much we know. The Corporations will receive large fees without taking the slightest trouble for them—a provision which looks odd when thus plainly expressed, but which is necessary to compensate them for the loss of fees now received for their own examination and licence. The reasonableness of some such compensation is apparent to us of the present generation; who will therefore easily submit to it. But our followers in the next generation, probably as restless and fond of change as ourselves, will be apt to take a different view, when they find themselves severely mulcted for little or nothing—for no privilege whatever—for an empty title only. It is mere vanity to set forth as an equivalent the advantages of museums and libraries; which no one can enjoy who is not a resident of one of the three capitals. In no long time a new agitation will arise upon the most hateful, but most potent, of all themes—a money question; and it is easy to foretell the result. In fine, the Universities may withstand the threatened revolution. But the Corporations will be in danger of becoming mere clubs. Universities are a necessity for the highest walks of profestional education in every civilised land. Corporations are not so situated. In the whole Continental kingdoms there is not, and there never has been, anything approaching in constitution to our British Incorporated Colleges. Some perhaps may be disposed to ask—'Why, then, should Corporations exist in any country?' and a rumour has reached us here that this question has been actually whispered among some vigorous reformers in the South. But I apprehend that such a question will find no resting-place in this Association or in any other public medical body; and I mention it merely to give a little cogency to my fears, that, if the Corporations part with their present important privilege, and the most important of the duties for which they were chartered—that of examining themselves the candidates for their licences—they may find they are opening the door for the question being seriously raised at some future period. Why, then, venture on a complex plan of examination difficult to carry out, far from sure to attain its object, fraught with hidden dangers, and opposed by some of the chief professional bodies concerned? Why not rather take advantage of the present system—itself, indeed, complex enough, but nevertheless the gradual product of the wants and the wishes of a free people, not, therefore, to be lightly set aside? Why not correct it, and improve it through means which the Legislature has not long ago put into the hands of our Profession for the very purpose? The present entrance-door to the Medical Profession is not really, though nominally, a University, a Royal College, an Apothecaries' Hall, or a Faculty of Physicians and Surgeons: it is an examination. There is no reason I can discover why the examinations of all these bodies, numerous though they be, may not be brought up to a reasonable standard of equivalence, now that the Medical Council have put forth their strength towards that end. Let their endeavours have a fair trial. Should the result prove unsatisfactory owing to insufficient control, support them in obtaining more direct powers; and allow time for further trial. This, surely, is a wiser course than to rush upon untried treacherous ground, and daring measures entirely novel, which, though on the surface they promise reform, at bottom threaten revolution. Allow me, in conclusion, to add a brief word or two on the general question. In this kingdom three denominations of practitioners are provided by education and examination:—(1) The ordinary class of general practitioners in town and country; (2) high-class physicians and surgeons, who practise chiefly in cities and large towns; and (3) an intermediate order, educated on the footing of the highest attainable education for the greatest possible number, and whom circumstances may attach, some to the first, some to the second class. The Corporations provide the first class by their licence, and most of them, by means of their Fellowship, enable licentiates to pass into the second class, if they please. The two great and old English Universities, through means chiefly of a protracted education, and the London University by elaborate examinations, aim at producing the second class, at least in physic, ready-made, so to speak. The founders of medical education, as well as their successors, in the three Scottish University schools, and likewise, I think, in those of Ireland, have aimed at supplying the third class, by supplying the highest education attainable by the greatest number. It is no part of my present undertaking to settle which of the three educational aims is the most important. They are all highly so. It is as little a part of my present undertaking to inquire which of the three objects have been satisfactorily reached by the several bodies entrusted with them. All have undoubtedly been more or less successful, and none can be charged with failure. But I claim for the Scottish Universities, and eminently for the University of Edinburgh, that they have attained the object for which they were destined, by supplying to the greatest number the highest education of which that number can take advantage; that, also, they enable men of superior original talent or industry to go out from their schools with high qualifications, not inferior to those of the graduates of any of the English Universities; that these results flow from their system of education and examination, the fruit of long educational experience; and that their elasticity is such as to render it easy for them to adapt themselves to the progress of knowledge and of public opinion. It is well known that the Universities' Commissioners, under the Act of 1858, took infinite pains to effect such adaptation at that time. I have put before you the remarkable result. Surely it is not too much to ask that the Universities of Scotland shall not be disturbed by further and doubtful innovations during so important an experiment, following recent and serious changes; and I venture to submit that their neighbours may do worse than watch a little longer the experiment going on here before they venture upon dangerous innovations for themselves."

Although the Address was, as might have been anticipated, an able one, there was a general feeling amongst those present that the subject was for that occasion neither appropriate nor interesting. After Sir R. Christison had dilated for about an hour on the history of the Edinburgh University and on its excellences, many unmistakable symptoms of fatigue showed themselves in the audience. One by one the assembly thinned, until at last not more than half of those present at the commencement were left to hear the vigorous onslaught on the proposed Conjoint Scheme, and on the functions of some of the Medical Corporations.

No better manifestation of the high respect that every member of the profession bears towards the venerable President could have been given than that, notwithstanding the tediousness of the address, and the uninteresting nature of the topic to the vast majority of the audience, more than three hundred remained to the end. Those, however, who did stay evidently had a keen relish for the quaint humour of Sir W. Fergusson, who, in one of the best speeches we have heard from him, proposed a vote of thanks to Sir R. Christison. When Sir William humorously remarked that in the brief space of an hour Sir R. Christison had given the outcome of many years of careful thought, the spontaneous and simultaneous movement of all faces towards the clock was simply ridiculous—the fact being that the delivery of the address occupied more than two hours.

Then followed a mighty exodus. Not more than about eighty of the 800 present at the opening remained at the first general meeting. And when it is borne in mind, that even of the eighty many were members of the Council, it will be no

exaggeration to say that the meeting was not a representative one.

It was first proposed that, as it was so late, the Report of the Council should be accepted as read, and entered on the minutes. This unparalleled procedure was of course opposed by Mr. Walter Rivington, who moved an amendment that the Report be printed and circulated among the members, for consideration on the following day. This amendment was lost by 31 against 35, the thirty-five against the amendment including the members of the Council themselves.

Dr. SIBSON then proposed that the altered bye-laws of the Association he accepted *en bloc* without discussion. In his usual pleasant manner he besought all present to waive discussion and to propose no changes. There were, he said, few differences from the old bye-laws, and anything that appeared undesirable could, he said, be brought up for discussion next year. There were, he confessed, changes made which he was sure would be unmade next year.

Mr. HUSBAND followed in the same strain, and begged the members to take the word of the committee and accept the bye-laws without reading them or discussing them.

To this strange proceeding Dr. CHADWICK entered a vigorous protest, as there were several most important questions involved in the bye-laws which he should like to have discussed.

After a little discussion the dominant party gained the day, and the few members who stayed accepted for the great body of the members, without reading them, the altered bye-laws.

After the formal re-election of office-bearers the meeting, which had altogether lasted over three hours, broke up, and the members went home to late dinners.

At half-past nine in the evening the President held a reception in the Music Hall, George-street, where, notwithstanding a very heavy fall of rain, a very large number of the members of the Association and their wives made their way. Upwards of 1600 were present.

At half-past nine on Wednesday morning, the 4th inst., there was a private meeting of the Council, 1875-76.

At the same hour Professor LISTER gave demonstrations of antiseptic surgery in the theatre of the infirmary.

The demonstration was an instructive and entertaining one. In it Mr. Lister showed all the various apparatus required in the practice of antiseptic surgery, including the preparations of instruments and dressings, and the precautions to be taken by operator, assistant, and patient. He then illustrated the mode of employing antiseptic dressings.

The first case that was treated was a simple but striking illustration of the practice of antiseptic surgery. A man who had previously been successfully operated on for the removal of a collection of fluid under the deltoid muscles, was admitted with an effusion into the right knee-joint. As the fluid had persisted in spite of the ordinary method of treatment, it was deemed advisable to evacuate the fluid by operative interference. The limb was therefore washed with a solution of carbolic acid (1 in 20), and the atmosphere surrounding the limb was rendered aseptic by means of a carbolic acid spray (1 in 40). A free incision was then made along the outside of the patella with a knife that had previously been lying in a carbolic acid solution (1 in 20). After the divided vessels had been secured with a fine catgut ligature, and all bleeding had been arrested, the capsule was opened and the fluid evacuated. The finger, previously made aseptic, was then passed into the joint to examine its condition, and a band which prevented the free passage of the finger was divided with a probe-pointed bistoury. Two prepared drainage tubes were then put into the joint to ensure free escape of fluid, and the wound was then dressed by means of the protective and well-known gauze with the piece of mackintosh. It may here be observed that in our columns Mr. Lister described the recent improvements in the apparatus employed in antiseptic dressings, and in the mode of using them.

A second case was then shown, in which the ankle-joint had been opened a fortnight previous on account of pain and swelling. When the dressings were removed, the wound was found partly healed, there was no putrefaction, and the original blood was lying in the wound, and evidently undergoing organization, for when it was cut it bled profusely.

In a third case, Mr. Lister had operated twelve days before on the femur in a man for united fracture. The wound was healed where it had been stitched. There was no inflammatory reaction, and everything was progressing satisfactorily. The whole of the limb was fixed in a plaster of Paris splint, and a permanent cure is confidently expected.

At the conclusion of this interesting demonstration, in which all the minutiæ of antiseptic surgery were elucidated and the advantages of this practice fully proved, Mr. Lister was loudly cheered.

The second general meeting of members was held in the Chemistry Class-Room at half-past eleven of the same day.

After some discussion, Brighton was appointed as the place of meeting for 1876, and Sir J. Cordy Burrows was chosen president-elect. An attempt, which seemed at one time likely to be successful, was made to have Liverpool appointed as the place of meeting next year. In favour of this proposition it was urged that whereas many members of the profession in Brighton had petitioned against the holding of the meeting at Brighton, a numerous requisition had been sent from Liverpool requesting that the Association would hold its next annual meeting at that town.

The thanks of the Association were then accorded to Mr. Southam for his services as President of Council. Dr. Falconer, late Treasurer, was elected President of Council, and Mr. Husband was appointed Treasurer.

After some other unimportant business was got rid of, Dr. OLIVER PEMBERTON, of Birmingham, said that he noticed among those appointed to read papers were two ladies, and he presumed they were members of the Association. He did not know by what means these ladies had been made members, but he felt that on a question of that kind the opinion of all the members of the Association should be taken. He therefore moved—"That it be an instruction to the Secretary, between now and the next annual meeting, to issue a circular addressed to every member of the Association, requesting an answer, yes or no, as to the admission of female medical practitioners to membership."

This was duly seconded by Dr. MARSHALL, who complained that the members of the Association had too little opportunity for the discussion of its own affairs, and he called upon the members generally to insist on their right to take a more active part in the management of the business of the Association.

After some remarks from Dr. Carpenter and Mr. E. Hart, the motion was carried almost unanimously, there being only one hand held up against its acceptance.

Dr. WARBURTON BEGBIE then delivered his able address, which we publish *in extenso*. After a vote of thanks had been accorded to Dr. Begbie, on the motion of Dr. Gairdner, who spoke in high praise of the orator's qualities, socially and professionally, the meeting broke up.

In the afternoon the business of the sections was proceeded with.

On Wednesday night the President and Fellows of the Royal College of Physicians gave a *conversazione* at the Museum of Science and Art. The assemblage was large and brilliant, the spacious halls and corridors being well filled. The company on their arrival were received by Dr. Lowe, President of the College, and Mrs. Lowe.

At half-past nine on Thursday morning Professor Lister gave a second demonstration of antiseptic surgery. At ten the third general meeting was held, and while Mr. Lister was addressing a crowded theatre the Council were reading the Report of Committees to almost empty benches, the said reports being received in silence by the audience. At the commencement not more than twenty-five members were present, and the number did not at any time exceed fifty. At eleven o'clock Professor Spence delivered the Address in Surgery, in which he ably reviewed the general progress of surgery.

In his address the President of the Section of Public Medicine referred to the recent attempts at sanitary legislation. He strongly condemned the haphazard manner in which medical officers of health are appointed, and denounced the inequality of the size of the districts allotted to each. He affirmed moreover that the Local Government Board has not yet fully recognised its preventive functions, and expressed his determination to ascertain whether the machinery of the Board is competent to secure the prevention of preventable diseases. He warmly advocated the registration of disease, which he held was of equal importance with the registration of deaths, which, after all, only gave the number of wrecks after the storm, whereas the registration of diseases would indicate the state of the barometer that precedes the storm, so that we should have warning to avert it, or fly from danger.

EMIGRATION.

THE sanitary aspects of emigration are so numerous and important that we naturally scan with great interest the annual returns on this subject furnished by the Board of Trade. The exodus of persons from the United Kingdom to the United States and the colonies during the past year exhibits a total decrease of 22·40 per cent. as compared with 1873, the falling off being wholly due to the emigration to North America, attributable to the high rate of wages now given in this country, and also to the commercial depression in the United States. These passengers were conveyed in 664 vessels, 536 of which were steamers, and 128 sailing ships. Of the steamers, 423 went to the United States, 92 to British North America, and 8 to Australia. No mortality returns have as yet been received in respect of the Australian ships, but it is necessary that they should be published, as several epidemics have occurred in these vessels among children. Among 156,776 passengers in steamers to North America, 30 deaths occurred, being at the rate of ·02 per cent., which, taking the voyage at twelve days, is equal to a mortality of 5·81 per 1000 per annum. The 34th section of the Act passed last year to amend the law relating to births and deaths, and to consolidate the law respecting the registration of births and deaths at sea, obliges the master of every British ship, under a heavy penalty, to furnish a return to the Registrar-General of Seamen of every birth and death that occurs on board. It is to be hoped that plain directions are given to the masters enabling them in some sort to classify diseases, inasmuch as the last returns of mortality at sea gave 60 deaths from "natural causes," and 161 from "unknown causes." A total of 33 deaths occurred among 5879 passengers to Australia, being at the rate of ·56 per cent., or, taking the voyage at seventy days, equal to a mortality of 29 per 1000 per annum. The miserable loss of the *Cospatrick* by fire caused the death of 470 persons, but no other casualty occurred during the year, which speaks well for all concerned.

These returns, though compiled carefully and summarised well, are yet very incomplete as regards particulars of what may be called the sanitary aspects of emigration. As we remarked above, no particulars are recorded relative to several epidemics that occurred on board Australian ships last year. It is proper that the causes of deaths, too, should be included in these reports, that special notes should be sent by the medical officers of the ship to the Board of Trade as to the general hygienic state of the vessel during the passage, and the general sanitary condition as regards sickness (without mortality) of the passengers. These notes should be collated and summarised at headquarters, and thus a valuable addition to knowledge in sanitary science afloat would gradually be amassed. We refer, of course, chiefly to Australasian emigrant ships, for the North Atlantic passages are too short to admit of much or precise medical observation. The medical officers of the army and navy, and civil practitioners in charge of convicts, coolies, or army drafts afloat, are all required to keep a very strict diary of the cases under their charge. Why should not this plan be adopted as regards our emigrants, who are in most other respects very well cared for? We are informed that the scales of medicines, medical stores, and instruments required to be carried in emigrant ships are being, or have been, revised and simplified; and that some pains are likely to be taken to ensure that none but registered practitioners shall take service afloat. This latter reformation has been shown to be necessary in consequence of a return submitted to Parliament some few weeks ago, on the motion of Captain Bedford Pim.

All these reforms are in the right direction; but recent revelations and many circumstances that have lately transpired with reference to the Merchant Shipping Bill that has just been "massacred," all tend to show that the Marine Department of the Board of Trade is very much overweighted. Inasmuch as the Board is now responsible for the proper conduct of many matters connected with medicine, hygiene, scales of diet, accommodation of crews, ventilation, antiscorbutics, &c., all of a purely technical character, it is eminently advisable that the political and permanent chiefs should have the continuous aid of a professional officer, to whom all such matters would be referred from the outports, who would conduct all official inquiries, look to the qualifications of ships' surgeons, the condition of medicine chests, &c.; and furnish an annual report, such as we have indicated above, on the sanitary condition of emigrants and emigrant ships, as well as of the mercantile marine.

Correspondence.

"Audi alteram partem."

CHLOROFORM OR ETHER.

To the Editor of THE LANCET.

SIR,—I beg to thank you for the very impartial manner in which you have referred to the subject of the relative dangers of ether and chloroform as general anæsthetics. If I have committed any error in publicly calling attention to this important question, I can only urge in extenuation that my object has been based entirely on general and professional good—not on personal interest. I never administer an anæsthetic. I have witnessed death take place from the administration of chloroform more than once, and my deepest sympathies have been with the administrator on such occasions. I am therefore glad, so far, that you have again an occasion to refer to this subject.

There are two points on which I hope you will still further prosecute inquiry, and bring your powerful influence to make each more clear:—The first is as to the actual number of deaths—well authenticated—from the effects of pure ether, and their complications; the second is as to the proper preparation of ether to be used in inhalation.

With respect to your observations in reference to deaths from ether, it appears to me that you have, to some extent, taken too much for granted. After referring to the death, in 1847, at the Hôtel Dieu d'Auxerre, you state that, "In the course of the same year other deaths, assumed to be from ether, and certainly on as good evidence as has been often assigned since in relation to deaths attributed to chloroform, were reported in this country."

Dr. Snow devoted much time at St. George's Hospital to the administration of ether when first introduced. I saw much of his practice, and all who recollect his honest and painstaking method of work will agree with me that he would not have hesitated to publish any fatal results, however much they might have told against his administration of the novel anæsthetic. I write subject to correction, but I have no recollection of any such cases. With respect to chloroform, it is far different.

But let us look practically at the facts as we find them. In 1872 Mr. Haward states (Med.-Chir. Soc. Trans., vol. xlv., p. 7):—"The Committee appointed by this Society to investigate the use and effects of chloroform report 109 fatal cases. In the *British Medical Journal* for July 2nd, 1870, is a table of 18 more cases, and in an appendix to this paper I have given 13 others, not included in either of these collections." I do not stop to inquire how many fatal cases have occurred since that paper was written; suffice it to say, we have here a total of 130 deaths.

What are the results of all we at present know of death from ether? "Dr. Andrews states that in 92,815 cases in which ether was given, in only 4 cases it was fatal. M. Pétrequin, of Lyons, also states that for the fourteen years that ether has been exclusively given in that city there has been no death from it." (Med.-Chir. Soc. Trans., vol. xlv., p. 6.)

Mr. Haward informs me that he has administered ether in more than 700 cases, and has never met with a case which occasioned him the slightest anxiety. Ether has now been administered at St. George's Hospital between four and five years, and in every variety of operation, and, so far as my personal observation goes, I can state that I have not once witnessed a symptom indicative of danger.

There is one advantage in the administration of ether, irrespective of the question of safety, which, I think, has not been sufficiently appreciated. I allude to the benefits

derived from the stimulating effects of ether, in cases of severe injury, with great prostration, and in which an operation is requisite—or in any formidable operation. In two instances of amputation at the hip-joint under my care, Mr. Haward, who was the administrator of the ether, observed that the condition of the pulse was better and stronger after than previous to the operation. I always felt anxious while formerly engaged in operating on patients under the influence of chloroform, and more than once had considerable cause for anxiety. Since the use of ether has been established I have had no cause for anxiety, but much satisfaction in its employment.

It is most desirable to obtain all particulars of the conditions attendant on reported cases of death from ether. A late recorded case was evidently due to the employment of ether prepared for local anæsthesia—not pure ether. The case reported in the last number of THE LANCET of death from the effects of chloroform would probably have proved fatal under the effects of ether. The patient appears to have had but little spare lung to allow of natural respiration carrying on life, much less could life be safe with any additional interference to the entrance of pure air to the damaged lung. A case related by Dr. Bigelow, in which ether was fatal, would come under a similar explanation.

No one can doubt that ether can be made to kill; but when it proves fatal in a case of diseased or consolidated lung, chloroform would probably prove equally unsatisfactory; but neither anæsthetic should be condemned under such circumstances. But chloroform has destroyed life in the most healthy subjects, often without any warning, and prior to the commencement of the operation for which it was intended. Nor does there appear to be any preliminary symptom by which its unfavourable effects may be predicted. The sudden cessation of the pulse is the only symptom antecedent to death.

With respect to the quality of ether to be used for inhalation, I give no opinion. I am informed that pure washed anhydrous ether should be alone employed. You will do good service by having this point set at rest.

The cost of an anæsthetic should not be of a moment's consideration when safety is placed in the balance. Nor is the difference of time required to produce perfect anæsthesia of any importance, when it is found to be only about a minute or two in favour of chloroform.

Allow me to say that if I have appeared in any degree to have overstated the advantages of ether, I have only reported the results of not a slight observation of its effects, and with a conviction, from such observation, that in the hands of a large number of our profession it is the safest and a perfectly safe anæsthetic. Chloroform, administered by one who possesses the tact, experience, and judgment of Mr. Clover, is reduced in danger to a minimum. It is not everyone who can command his experience and judgment, nor is it everywhere that his method of administration can be adopted. The "rough and ready" method of administration by lint, towel, or sponge must be had recourse to, and thence the danger.

I now take leave of this subject. If what I have said should in the remotest sense serve to lessen the dangers of anæsthetics, or be the indirect means of saving a professional brother from the distress of witnessing a fatal case, I shall be amply rewarded, and the profession generally will have to thank you for having once more brought this question prominently forward.

I am, Sir, yours obediently,

Grosvenor-street, W., Aug. 3rd, 1875. GEORGE POLLOCK.

To the Editor of THE LANCET.

SIR,—In your leading article last week, on the subject of the relative advantages of chloroform or ether as an agent for the production of surgical anæsthesia, you represent the question as one which is still open to doubt, and you speak of the existing experience of chloroform as being enormous, and of that of ether as if it were comparatively small. May I be permitted to say, with great submission, that these are views in which I cannot concur, and which appear to me to be entirely at variance with well-established facts.

It may be true, as you allege, that the deaths produced by chloroform are only as one to every two thousand five hundred cases in which it is inhaled; but it is inhaled so frequently that this small proportion amounts to a very serious aggregate. I am acquainted with one surgeon, practising in London, who asserts that he has witnessed *sixteen deaths* from chloroform (all of them, I believe, in the course of operations upon the eye); and with another who has witnessed *six deaths*. The mortality, such as it is, is totally without warning. No experience can foresee in what cases it will occur, no skill can do anything to prevent its occurrence. There have, it is true, been a few instances in which life has been threatened by failing respiration, but in these the patient may always be saved if proper treatment is adopted. The deadly cases are those of syncope, or paralysis of the heart, and this, whenever it occurs, appears to place the victim beyond the reach of human aid.

The loss of one life in two thousand five hundred inhalations would not, I think, forbid the use of chloroform in surgery if chloroform were the safest of our anæsthetic agents, or even if it offered any great practical advantages to the administrator or to the operator. But I contend, first, that ether is in all respects as available and as effectual as chloroform; secondly, that it is *absolutely safe*. I do not believe that it has ever destroyed life, nor do I believe that it has any tendency to destroy it.

With regard to the efficiency of ether, I may say that I finally abandoned the use of chloroform three years ago. Since that time I have performed at least fifteen hundred operations upon the eye at St. George's Hospital, and a smaller number at the Royal South London Ophthalmic Hospital, using ether as my sole anæsthetic. Its administration requires from two to four minutes, and the anæsthesia which it produces leaves nothing to be desired. It has been in use at St. George's Hospital for a still longer period in general surgery; but until Dr. Joy Jeffries, of Boston (U.S.), taught me, in 1872, the proper method of administering it, I did not consider it available for ophthalmic operations. Unless given with great freedom, it does not completely relax the muscular system.

My experience may, I venture to think, be accepted as conclusive with regard to the *efficiency* of ether; and to those who have not found it efficient I would suggest that they have something to learn, as three years ago I myself had all to learn, with regard to the method of administration. On the question of safety, let me remind you that, in speaking of our experience of ether as small, you leave out of sight the colossal experience of our brethren in the United States, who, I believe, use ether almost exclusively, and who have had no deaths from its employment. I will not dwell on this part of the subject, because I have written to ask Dr. Joy Jeffries to favour me with an account of the American experience, which, when I receive it, I will transmit to you for publication. My own cases are, of course, insufficient to establish the safety of ether; but they enable me to say that I do not recognise, in the *nature* of its influence, anything which is calculated to be deadly—nor, supposing common care to be taken, do I see in what mode it could produce death. I fully believe in the correctness of Dr. Joy Jeffries' assertion, that, as long as the patient receives air enough to prevent suffocation, you could not destroy life by ether if you tried. No one who has seen much of the use of chloroform can have failed to recognise the oftentimes deadly tendency of its action.

You say truly, Sir, that deaths from ether have been recorded, but it does not follow that they have taken place. In one recent case, for example, the fluid administered was not ether, but a highly dangerous compound which is used to produce refrigerating spray. In another case, death occurred during an operation on the tongue from the passage of blood into the glottis, and this, although it may have been due to the anæsthesia, could not have been due to the anæsthetic. Among the "recorded" instances there may be some in which the facts are not now ascertainable; but I believe I am correct in saying that wherever the facts have been examined, the case against ether has broken down. It must be understood that I speak of pure sulphuric ether, and of this only.

On the grounds which I have thus endeavoured to set forth, I hold that the use of chloroform in surgery can never be necessary, and, as an inevitable consequence, that it can never be justifiable. I make an exception in the case

of young children, for whom chloroform is scarcely dangerous, and I do not refer at all to the practice of midwifery, in which the quantity and method of administration are such as to make surgical experience inapplicable. But I hold that no medical practitioner, merely because he has used chloroform without accident until now, or merely because he has not learnt how to use ether, is entitled to expose a patient to the risk of being the one person who will die, although two thousand four hundred and ninety-nine others may escape.

I am, Sir, your obedient servant,

Wimpole-street, August 3rd, 1875. R. BRUDENELL CARTER.

To the Editor of THE LANCET.

SIR,—For the safe and efficient administration of ether vapour for producing anæsthesia, several things are needful to be known and remembered, which are chiefly these:—

1st. That kind of ether should be used which is fittest for the purpose of inhalation, and this is the pure anhydrous washed ether, sp. gr. 720; free from alcohol and water. Robbins's "ether for local anæsthesia" is a dangerous compound for inhalation. It was this last which was used in a case recently fatal at Manchester.

2nd. The ether should be given in such a way that the inhalation may be commenced with a very weak vapour, which, after a few inspirations, can be rapidly increased in strength. If we begin with too powerful a vapour, the air-passages are intolerant of it, and the patient resists the inhalation; but after a few moments' inhalation of a weak vapour, its strength can be increased without inconvenience, and the patient rapidly brought under its influence. I think a cone of felt, covered with thin mackintosh, is the simplest and best apparatus for this purpose.

3rd. Stimulants should not be administered before the inhalation. Ether is itself a stimulant, and can be safely given in cases where there is great depression; but, as Mr. Clover has pointed out, it is very undesirable to have alcohol in the stomach when ether is being inhaled.

4th. Whatever danger may belong to ether has relation to the respiratory function. The breathing should therefore be watched; and, I may add, it is desirable so to place the head of the patient that the saliva (the secretion of which is increased by the ether) may run out at the corner of the mouth rather than into the trachea.

The superior safety of ether over chloroform is not, I think, by anyone doubted, and in my paper read at the Medico-Chirurgical Society in 1871, I pointed out the advantages which it possesses. A greatly extended experience has confirmed the opinions I then expressed, and, with your permission, I would repeat the words with which I concluded that paper. "It has been said that one great advantage of anæsthetics is the mental tranquillity with which a person is enabled to regard the prospect of an operation which is to be robbed of its pain; but I am not sure that this is not often counterbalanced by the dread of an anæsthetic which it is known may of itself prove fatal. It seems to me, therefore, that for this, as for the other reasons I have herein advanced, we should avail ourselves of an anæsthetic so safe as ether appears to be, rather than of one, however much it has to recommend it, to which is attached the danger which unquestionably pertains to chloroform."

I am, Sir, your obedient servant,

J. WARRINGTON HAWARD.

Montagu-street, Portman-square, July 28th, 1875.

P.S.—May I ask the favour of a reference to the record of fatal cases of ether inhalation mentioned in an article in THE LANCET of July 31st, as I am desirous of ascertaining the number of recorded deaths from the use of that anæsthetic. J. W. H.

August 2nd.

*** The instances of death either from or presumed to be connected with the administration of ether which we had in our minds whilst writing the article were:—Case recorded in the *Gazette Médicale de Paris* for March, 1848. Jobert, two cases related to the Academy of Medicine, Feb. 16th, 1847. Nunn's case, *Medical Gazette*, vol. xxxix., p. 414. Case in 1847, in which the late Mr. Robinson, of Gower-street, administered ether for an amputation. Robb's case, *Medical Times*, March 27th, 1847. Barrier's case, *Gazette des Hôpitaux*, June 18th, 1853. THE LANCET, Oct. 18th, 1873. Ibid., April 17th, 1875. Ibid., July 3rd, 1875. The independent diligence of our correspondent would probably supply him with further similar examples of it were he bent to the task.—ED. L.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—I respectfully invite the attention of the medical officers of the public services to the following particulars of a sad case.

An assistant-surgeon, whose name it is not, perhaps, necessary to give, but which can be given to any subscriber who desires to know it, lost his health in the Crimea, and, after a lingering illness, died from softening of the brain, leaving a widow and five children in circumstances of extreme destitution. This officer's ill-health was not brought on by imprudence or bad habits. Those who have interested themselves in this case, and whose names are given below, know that his habits and conduct were always such as to command the respect of his friends. It must also be added that he made such provision as he could for his family by insuring his life in the Army and Navy Insurance Office, afterwards amalgamated with the "European." It is useless to add that no benefit was derived from this insurance, as this office disastrously failed. When this occurred the state of the assistant-surgeon's health was such that a second insurance on his life was impossible. For several years before his death he supported his wife and family, and met all the expenses of his long illness, on his half-pay of 8s. a day. Not having served for ten years, his widow is not entitled to a pension.

It is proposed to raise a sum of money for the purchase of an annuity for the benefit of the widow, who at this time depends on the charity of her neighbours for daily bread for herself and children.

The following gentlemen will be happy to receive subscriptions in aid of this fund:—Major-General Lewis, Shirley, Southampton; Lieutenant-Colonel Begbie, Shirley, Southampton; Dr. Parkes, F.R.S.; Surgeon-General Longmore, C.B.; and Surgeon-General W. C. Maclean, C.B., Royal Victoria Hospital, Netley.

I am, Sir, your most obedient servant,

Netley, 30th July, 1875. W. C. MACLEAN, M.D.

THE TREATMENT OF HÆMORRHOIDS AND PROLAPSUS BY THE CLAMP AND CAUTERY.

To the Editor of THE LANCET.

SIR,—In reply to Mr. James Lane, allow me to state that with regard to the main and most important feature in his "criticisms" of my operation, contained in his communica- for Sept. 2nd, 1865, I made no misrepresentation. The point I wished to call attention to was this, that he had freely given his opinion of, and as freely criticised, a mode of treating hæmorrhoids which he had not once tried himself. In his present communication Mr. Lane confirms this statement of mine, and I must repeat my opinion that when he made these "criticisms" Mr. Lane was not in a position to give any effect to his statements, and I think it was peculiarly unfortunate of him that he did not defer passing judgment until he had had at least some personal experience of this operation. I am glad, however, that a lapse of ten years has made him a wiser man, and more able to give weight to his criticisms, for he tells us that since then he has repeatedly practised the method in question; and as one of my main objects in publishing my papers on this subject is to gain converts, I am greatly pleased at this forward step on Mr. Lane's part.

As I have already laid my experience fairly before the profession, with the reasons which led me to follow this particular plan of treatment in preference to the ligature, I need not discuss the various questions raised by Mr. Lane; but

with reference to a remark quoted by him from my original Lettsomian Lectures, to the effect that "It is *not possible* that tetanus or pyæmia can occur after this operation," I beg to state that on a valued friend pointing out this passage to me I withdrew the word *possible*, and substituted for it the word *probable*, in the last edition of my lectures. Of course Mr. Lane has not observed this correction, otherwise he would have acted in a similar manner to one of my most severe critics, Mr. Allingham, who has not overlooked this change in the word, and has pointedly referred to it at page 103 of his book on "Diseases of the Rectum."

With reference to Mr. Lane's hope that I may be converted to the employment of the ligature, I must beg him to dismiss this from his mind—should the anticipation of it give him the slightest amount of pleasure,—for the word *conversion*, as we employ it, means a turning towards something better, a condition of mind and practice we all ought to adopt; but so long as I have the power of discriminating between two courses, I shall certainly never think of going back to the practice of the ligature. After my previous experience of this plan and my present means of the clamp and cautery, I could not conscientiously do so; for I repeat, notwithstanding Mr. James Lane's opinion (and I think I am warranted from my large experience in saying so), that I have repeatedly proved that, as regards the three most important elements of the saving of life, of diminution of pain, and of less prolonged convalescence, the method by clamp and cautery is far superior; and it is a great pleasure to me to hear this statement continually verified by practitioners from the country, and from all parts of the world, who have seen me operate either in King's College Hospital or in private.

I am, Sir, yours, &c.,

Wimpole-street, August 3rd, 1875. HENRY SMITH.

QUACK MEDICINES.

To the Editor of THE LANCET.

SIR,—My attention has been called to a letter written by Dr. O'Neill (accompanied by an analysis of my Blood Mixture), which was published in THE LANCET of the 24th inst. I have no wish to enter upon the question of the correctness or otherwise of the analysis, which, as far as I can judge, must have sadly disappointed Dr. O'Neill, at whose instance it was made; but I am much mistaken if you do not share my opinion that the following facts should be brought to the notice of the readers of THE LANCET, whose columns, though open to *bond-fide* discussions of public interest, should be closed against communications having other objects.

On the 21st June last I received from Dr. O'Neill an application for £44 2*s.* for alleged attendance on myself and my wife in 1864, 1865, and 1866. He at the same time forwarded to me two other bills against relatives of mine, for which I was in no way responsible. His letter admitted that he never previously delivered the account, but stated he had forty-two visits down against me. I am not indebted to Dr. O'Neill, and I hold a bill of his dated Christmas, 1869, to which his receipt is attached, and which does not in any way allude to a previous charge. On the 27th June my solicitor wrote to him denying any liability, but offering to refer the question either to arbitration or to a court of law, *and undertaking to contest the claim entirely on its merits*, and without raising any technical line of defence which was open to me, and which would at once have put an end to Dr. O'Neill's case. A request was at the same time made that the dates and particulars of the forty-two alleged visits should be supplied. No statement has up to this time been delivered, nor has Dr. O'Neill made any attempt to procure a decision on his claim. Instead of taking such a course, he sends his letter and analysis to your paper.

My blood mixture has been advertised for the last twelve years, during the whole of which time Dr. O'Neill has been residing in Lincoln. I have been told on many occasions that he has stated (though incorrectly) that the mixture was made from a prescription of his. But what I wish especially to bring to your notice is that not until Dr. O'Neill has been unsuccessful in his attempts to obtain forty-two guineas from me does he make any effort "to confer a great boon on the profession and a greater boon still on the public at large" by having my blood mixture analysed and the analysis published. From the facts above detailed, your readers will be able to judge whether Dr. O'Neill has induced THE LANCET to "devote some of its valuable space" to the publication of his letter in order to do "great good to the medical profession and to the public at large," or whether his object is not altogether a different one.

I am, your very obedient servant,

Lincoln, 26th July, 1875. F. J. CLARKE.

*** For the sake of fair play we willingly insert Mr. Clarke's letter. But with Dr. O'Neill's motives in writing to us we have nothing to do; and it is very obvious that Mr. Clarke's letter in no way impugns Dr. Taylor's analysis, nor does it affect the only question in which the public are interested—viz., the propriety of administering such an agent as iodide of potassium, not only without medical supervision, but without even the knowledge of the patient himself.—ED. L.

Obituary.

W. J. CLARKE, M.R.C.S.

THE profession in Huddersfield has sustained a great loss by the death of Mr. W. J. Clarke, which took place at Cambridge on Sunday, July 25th, at the age of sixty. His vigour of body and mind, apparently unimpaired, seemed to promise a long life, but for some time he had suffered from occasional attacks of gouty pain. He missed his shooting in the autumn of 1874, and during the winter fell off still further in health. In April he went to Ventnor, and while there had a severe attack of hæmoptysis, which greatly reduced his strength. No structural disease of the lungs, however, could be detected, and he recovered so far as to go on a visit to his brother at Queen's College, Cambridge. Here pleurisy with effusion came on, and, notwithstanding the kind care of Dr. Paget, proved fatal.

Mr. Clarke deservedly held a leading position in Huddersfield. He was for many years surgeon to the infirmary, but, as is usual in the provinces, practised medicine as well as surgery. He was a man of remarkable vigour of character, clear sighted, strong in will and purpose, and thoroughly upright and honest. These qualities, carried into his professional work, made him an excellent all-round practitioner. His diagnosis was solid; he was alive to all the modern advances in therapeutics, but while ready to adopt everything that was valuable, he held fast the best features of the old school of practice which prevailed when he entered the profession. In surgery he was painstaking and cautious, and could show many instances of success in conservative procedure, but when the occasion required he was firm in recommending and bold in carrying out operations.

Mr. Clarke was universally respected, and had many firm friends among the leading men of the town; but it was only during his illness that the extent and depth of the regard in which he was held was known. His sterling worth was appreciated by the educated classes, and the poor had learned to distinguish behind a firm exterior genuine kindness of heart. Only a strong nature could inspire the respect and attachment entertained for him by the unimpressionable Yorkshiremen of the West Riding.

EDWARD WOAKES, M.R.C.S. ENG.

MR. WOAKES was born at Worcester in 1802, and received his early education in that town. Having chosen the business of chemist and druggist, he spent some years in the house of Messrs. Southall of Birmingham. While there he was appointed apothecary to the Birmingham Eye Infirmary, and henceforth became an industrious student of medicine. He subsequently entered at St. Bartholomew's Hospital, and, having passed Apothecaries' Hall in 1828 and the Royal College of Surgeons in 1829, settled in practice at Luton, where he pursued the arduous career of a country practitioner with the energy and zeal peculiar to the men of his day. In 1861 he retired on the dearly earned fruits of his labours, his constitution being greatly impaired by upwards of thirty years of work. Symptoms of softening of the brain set in a few years afterwards, and at length terminated fatally on May 9th, at the age of seventy-three.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on July 29th:—

Bernays, Sydney Adolphus, Acre House, Brixton.
Leigh, Reginald Heber, Aberdare, South Wales.

The following gentlemen passed the Primary Professional Examination on the same day:—

Bouton, George Charles, St. Mary's Hospital; John Bridwell Stelfox, Owens College, Manchester; Thomas Cuant, London Hospital; Henry Seymour Atkinson and Thos. Frederick Hugh Smith, King's College; John Alex. G. B. Messum, Wm. Parsons Feltham, and William Henry Gaze, St. Bartholomew's Hospital.

VACCINATION GRANTS.—The following gentlemen have been awarded grants by the Local Government Board for efficient vaccination:—Mr. W. A. Sumner, St. Marylebone, the sum of £149 18s. Mr. J. Acworth Angus, Western District of the Newcastle-upon-Tyne Union, £54 3s.; Mr. Jonathan Dalgliesh, of the same district, £43 16s. Dr. J. H. Gordon, Salisbury, £29 8s. Mr. Peter Swales, Sheerness, £25 2s. Mr. George J. Berry, Melksham Union, £12 2s. E. N. Carless, Devizes Union, £16 9s. Dr. C. F. Harding, Whittlesea, £10 11s.

THE JOHN PROPERT MEMORIAL FESTIVAL.—The Council of the Epsom Medical College celebrated the first festival in pious memory of its founder on Wednesday, 28th July, at the Ship, Greenwich, Mr. Erasmus Wilson, F.R.S., in the chair, supported by the Rev. Dr. West, the head master of the school, Drs. Sieveking, Chas. Hogg, Carr, and Bradley, and Messrs. Burford Hancock, Bransby Powys, Marshall John W. Eccles, &c. Mr. Wilson, in proposing the "Pious Memory of John Propert," remarked that his labours would, as a Godlike work, abide to all time, and teach for ever the blessedness of doing good in life. In proposing the "Health of the Chairman," Dr. Carr said that whilst all the members of the Council laboured to the utmost of their power to carry on the good cause of the College, none had done so much for it as Mr. Wilson, on whose shoulders the mantle of its founder had fallen. To Dr. Chas. Hogg is due the credit of the movement, which the Council and the friends of the College hope to continue annually.

Medical Appointments.

ALLEN, A. H., F.C.S., has been appointed Public Analyst for the Northern Division of the County of Derby, vice Scott, whose appointment has expired: 21s. per analysis, and 42s. per day when attending before magistrates to give evidence.

BARKUS, B., M.D., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Gateshead, vice Rolf, deceased.

BARRON, T. W., L.R.C.P.L., M.R.C.S.E., has been appointed Resident Medical Officer to the St. Marylebone General Dispensary, vice White, resigned.

BELL, W. H., L.R.C.P.L., has been appointed House-Surgeon to St. George's Hospital, vice Bennett.

CALLCOTT, J. T., M.R.C.S.E., has been appointed Assistant Medical Officer to the Durham County Lunatic Asylum, Sedgefield.

CHILDS, C., L.R.C.P.L., has been appointed House-Physician to St. George's Hospital, vice Sherwood.

CONSTABLE, J. J. C., M.D., has been appointed Physician to the St. John and St. Elizabeth Hospital, Great Ormond-street, vice Power, deceased.

COSE, W., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Muthill, Perthshire, vice Marshall, resigned.

GARRAWAY, E., M.R.C.S.E., has been appointed Certifying Factory Surgeon for Faversham, vice Spyers, deceased.

GOODE, H., M.B., has been appointed Public Analyst for the Southern Division of the County of Derby, vice Scott, whose appointment has expired: 21s. per analysis, and 42s. per day when attending before magistrates to give evidence.

GRACE, H., L.R.C.P.L., M.R.C.S.E., L.M., has been reappointed Medical Officer of Health for the St. George Urban Sanitary District, Gloucestershire, his appointment for two years having expired.

GREENWAY, A. S., M.B., C.M., has been appointed House-Surgeon to the Huntingdon County Hospital, vice Pike, appointed a Medical Officer to the Leicester Provident Dispensary.

HEYGATE, W. H., M.R.C.S.E., has been appointed Medical Officer of Health for the Crediton Rural Sanitary District, vice Body, deceased.

M'KENNA, W., L.R.C.P.Ed., L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Carrickmacross Dispensary District of the Carrickmacross Union, Co. Monaghan, vice Tagert, resigned.

MORRISON, J. W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Certifying Factory Surgeon for the Pembroke District, vice Reid, resigned.

PHILLIPS, E., L.R.C.P.Ed., L.M., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Castletown Dispensary District of the Navan Union, Co. Meath, vice Hamerton, resigned.

ROBERTSON, J., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Glenbervie, Kincardineshire, vice Henderson, deceased.

ROONEY, J., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kingscourt Dispensary District of the Bailieborough Union, Co. Cavan, vice Langan, resigned, and appointed to the Longford Dispensary District, Longford Union.

ROWE, T. S., M.D., M.R.C.S.E., has been appointed Medical Officer to the Convalescent Home for Orphans, Harold-road, Margate.

SAER, D. P., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for No. 1 District of the Pembroke Union, vice Reid, resigned.

SMITH, F. A. A., M.D., L.R.C.P.Ed., L.M., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 2 District, and Medical Officer to the Workhouse of the Mere Union, Wilts, vice Provis, deceased.

SPONG, W. N., M.R.C.S.E., has been appointed Medical Officer to the Faversham Union Workhouse, vice Spyers, deceased.

STEDMAN, F., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Castleton District of the Chapel-en-le-Frith Union, vice Haslewood, resigned.

THOMPSON, J., A.B., M.B., L.K.Q.C.P.I., M.R.C.S.E., has been appointed to the Police Force for the Borough of Royal Leamington Spa.

TOMKINS, H., L.S.A.L., has been appointed a Physician's Assistant to the Royal Infirmary and Dispensary, Manchester, vice Gallimore, resigned.

WADSWORTH, R., L.R.C.P.Ed., L.F.P. & S. Glas., has been reappointed Assistant Medical Officer to the Shoreditch Parochial Infirmary, Kingsland-road.

WILSON, A., M.R.C.S.E., has been appointed a Physician's Assistant to the Royal Infirmary and Dispensary, Manchester, vice Smith, appointed Senior House-Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

CARTWRIGHT.—On the 30th ult., at Leintwardine, Herefordshire, the wife of John A. T. Cartwright, Surgeon, of a daughter.

FERRIER.—On the 3rd inst., at Upper Berkeley-street, Portman-square, the wife of David Ferrier, M.D., of a daughter.

INGLIS.—On the 31st ult., at Worcester, the wife of A. M. Inglis, M.D., of a son.

LEAKE.—On the 31st ult., at Blythe-road, West Kensington, the wife of Jonas R. Leake, L.R.C.P., Surgeon H.P. H.M.'s Army, late 80th Regiment, of a daughter.

PERRY.—On the 25th ult., at Melksham, the wife of George J. Perry, M.R.C.S.E., of a son.

ROCHE.—On the 20th ult., at Springfield, Boswells, Chelmsford, Essex, the wife of F. E. Roche, B.A., M.D., Surgeon West Essex Militia, of a daughter.

TICEHURST.—On the 21st ult., at St. Leonard's-on-Sea, the wife of A. B. Ticehurst, M.R.C.S.E., of a daughter.

MARRIAGES.

SANGSTER—HATFIELD.—On the 28th ult., at St. George's, Tufnell-park, Holloway, Alfred Sangster, M.B., to Ann, daughter of the late John Hatfield, Esq.

WILLIAMS—PINK.—On the 29th ult., at St. Alphege, Greenwich, Leonard Williams, M.B., to Bessie Frances, daughter of H. N. Pink, Esq.

DEATHS.

BRAGGE.—On the 9th of May, at Hawthorn, near Melbourne, Australia, John de la Roche Bragge, M.R.C.S.E., aged 58.

BYRNE.—At Great Brunswick-street, Dublin, Thos. Byrne, M.B., F.R.C.S.I., aged 73.

FRANKLIN.—On the 2nd inst., at Folkestone, H. Franklin, C.B., Inspector-General of Hospitals, aged 88.

JONES.—On the 26th ult., at Ystrad, Geo. T. Jones, L.R.C.P.Ed., late Medical Superintendent of the North Wales Counties Lunatic Asylum, Denbigh, aged 55.

LA CROIX.—On the 24th of June, at Roseau, Dominica, Frederic La Croix, M.R.C.S.E., late of Winchester, aged 50.

M'KENNER.—On the 31st of May, at Dublin, Thomas M'Keever, M.D., aged 84.

PRIDIE.—On the 19th ult., at Edinburgh, Robt. Pridie, M.D., aged 68.

THOMAS.—On the 19th ult., at Hardy-street, Liverpool, Richard Thomas, Surgeon, aged 39.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. Green on Pathology and Morbid Anatomy.
Mr. Erichsen on Concussion of the Spine.
Dr. Bennett: Report on the Antagonism of Medicines.
Dr. Rumsey: Essays and Papers on some Palacies of Statistics.
A Report on the Hygiene of the United States Army.
Dr. Holland on Health in the Nursery.
Dr. Ashe on Medical Politics.
Mr. Morant on Game Preservers and Bird Preservers.
Vernon Galbray on the Empiric.
Mr. Henry: Posological and Therapeutical Tables.
Transactions of the New York Academy of Medicine. Vol. I.
Report on the United States Marine Hospital Services.
The Monthly Microscopical Journal.
Hardwicke's Science Gossip.
The Leisure Hour. Sunday at Home.
Street's Indian and Colonial Directory. 1875.

Notes, Short Comments, and Answers to Correspondents.

THE SCHOOL OF SALERNO.

MUCH doubt hangs over the origin of this famous temple of physic, and particularly over the genesis of its "Regimen Sanitatis." A few notices, therefore, culled from a recent Italian chronicler, who has investigated the facts anew, may not be unacceptable. From the ninth century onwards, physicians of note were found in Salerno, flourishing under the protection of the Norman Princes, who possessed the city, together with Apulia and Calabria. At the close of the eleventh century, Robert, one of the three sons of William the Conqueror, was returning from Palestine to England, where the crown, which had become his through the death of his elder brother, awaited him. On his way he stopped at Salerno to get cured of a fistula contracted during the siege of Jerusalem, and, thanks to the skill of the Salernitan surgeons, his cure was complete. Before taking his leave, he asked them for a "rule of life" to keep himself in good health, and accordingly they set themselves to the task of compiling a book of sanitary precepts. The chief contributor to it was the most learned of their number, John of Milan, and in the year 1100 it duly came forth. Its success was immediate. Edition followed edition—the chief commentators being Arnaldo da Villanuova, the physician of Charles II. of Anjou; the two Gianconi, Curio and Crellio; and, finally, Renato Moreau and Zaccaria Silvio. It brought much fame and many students to Salerno, which accordingly took the lead among the medical schools of the Continent for many years. Between 1480 and 1763 it was published in almost innumerable forms, with translations into all the European languages. In some respects the best is that edited at Pavia, with an Italian version by the Cavaliere Magenta. Its "wise saws" are worthy even yet of "modern instances." What can be better than this, for example?—

> "Si tibi deficiant medici, medici tibi fiant
> Hæc tria: mens læta, requies, moderata diæta."
>
> "Where doctors are not, be thy doctors then
> Contentment, ease, and moderate regimen."

The "restorative school" cannot but subscribe to the following summary of the Salernitan *mens*:—

> "Ova recentia, vina rubentia, pinguia jura
> Cum similâ purâ naturæ sunt valitura."
>
> "Fresh eggs, red wine, and juicy broth to sup
> With wholesome bread, keep nature's system up."

We cannot suppose the homœopathists will claim the Salernitan school as addicted to the "similia similibus" dogma on the strength of this couplet:

> "Si tibi serotina nocet potatio, vina
> Horâ matutinâ rebibas et erit medicina."
>
> "The wine that, taken over-night, has hurt you
> May prove, next morning, not without its virtue."

But *jam satis*. That a collection of precepts so quaint, and, for their time, so shrewd and so popularly accepted, has hitherto found no adequate editor or translator in England is as much a "curiosity of literature" as the book itself.

Inquirer, (Manchester.)—The lectures were delivered at the College of Surgeons by Dr. Brown-Séquard.

Dr. Henry Thompson's lecture shall appear in an early issue.

MILITARY TYRANNY.

To the Editor of THE LANCET.

SIR,—A relative of mine, an officer in the army, on his last return from foreign service, was strongly advised by one of the most distinguished surgeons in Brighton to wear a beard as a preventive measure against diseases of the throat, to which he is liable, and which, while of no great gravity in themselves, might, if unchecked, lead ultimately to most serious chronic complaints. Armed with a medical certificate from this gentleman, my relative was granted permission to wear his beard, and this he has continued to do for some years with great benefit. Thoroughly healthy in all other respects, he was more exposed to the trying weather at Dartmoor than probably any other officer there, and he has done duty at all the manœuvres since with equal immunity from any evil results beyond an occasional soreness of the throat. He has now received a peremptory order to shave immediately after the close of the present manœuvres, and that in spite of strong medical certificates adverse to such a course. The result will be that either this officer (a notoriously able, zealous, and appreciated public servant) will have to surrender his professional prospects, and that the public will not only lose a good officer, but will have to pay some £200 a year (his half-pay) for twenty or thirty years for losing him, or that he must risk his health by shaving, in defiance of the strongest medical advice to the contrary.

Now for the *reductio ad absurdum*. This same officer is permitted to wear a beard in any warm country, and only expected to shave on return to this inclement climate (all the more inclement to those who have to serve in such varied climates). Again, the marines, both officers and men, are not only permitted, but are expected to wear beards when serving at home and doing permanent garrison duty alongside of those who in no way particular differ from them, except in that one detail of having smooth chins.

It has always been understood in the army that upon all subjects of health medical orders were to override every other consideration. Perhaps some of your correspondents can inform me whether the medical advisers of the Horse Guards were consulted at all in this matter. I think I may at all events depend upon you to disappoint those who thus set up their opinion upon a medical question as superior to that of medical men.

I remain, Sir, yours truly,

July, 1875. EVERY MAN TO HIS OWN TRADE.

DAMIANA.

DR. J. J. CALDWELL, of Baltimore, calls attention in the *Medical Monthly* (New York) to a plant "new to the medical world," named damiana, to which he ascribes powerful aphrodisiac properties, and which is found on the western borders of Mexico. The tincture and extract of the plant are said to increase the flow of urine as well as the sexual appetite. The virtues of damiana are believed to reside both in the root and in the leaves. There are two classes of the plant. The best bears a white blossom and has a small leaf; the other has a yellow blossom and a large leaf, and is much inferior in aroma and strength to the former.

Mr. W. M. Farnell, (Cape Town.)—We cannot give space for the paragraph. It is a quack remedy. The disease is not curable.

A Visitor.—We must decline to notice the matter at present.

Mr. Lowe, (Lincoln.)—Next week.

THE TREATMENT OF CONTAGIOUS DISEASES.

To the Editor of THE LANCET.

SIR,—A great deal has been said and written of late in reference to the erection of hospitals for the isolation and treatment of contagious diseases. This discussion has, for the main part, been limited to the question of the selection of an intra- or extra-mural site for such hospitals; but, with your permission, I am desirous of raising the larger question whether the time has not arrived when the whole subject of the suppression of contagious, and therefore preventable, diseases should be considered with a view to efficient and sufficient legislative action.

We have heard a good deal about "*Sanitas sanitatum, omnia sanitas*," since it was made an election cry of; but next to nothing has been done. The Public Health Act was passed before this cry was raised, and in it measures are indicated rather for the *repression* of contagious diseases than for their *suppression*. I say indicated; for its provisions are, for the main part, permissive, and not compulsory. Permissive Acts of Parliament are, as I understand them, educational in their chief purpose; but I trust they are meant to lead up to their logical sequence, Compulsory Acts of Parliament, if people will not do what they are taught is for their own and for the common good. None, I presume, but Malthusians will deny that the utter suppression of contagious diseases must be for the greatest and highest good of the people. Bountiful nature has afforded us exceptional facilities for such suppression. Composed of islands, our country is surrounded by a sanitary cordon of a most perfect character. International intercourse will, doubtlessly, lead to the breaking of this cordon from time to time whatever may be done; but this danger may be greatly lessened, if not obviated, by the institution of a scientific quarantine.

For the successful suppression of contagious diseases in this country, it appears to me that the following provisions are imperatively required:—

1st. That contiguous to every centre of population there shall be provided a hospital for the reception and treatment of all cases of contagious disease which may occur in that population. Isolation as perfect as may be compatible with necessary accessibility being secured by the selection of the most eligible site on which to erect such hospital.

2nd. That there shall be compulsory registration of disease. Registration of the "cause of death" only enables our sanitary officers in too many cases to "lock the stable door after the horse is stolen."

3rd. That local sanitary authorities shall have power, and it shall be their duty, to compel the prompt removal of contagious cases to the hospital provided for their reception.

Were this the "law of the land," we should in a very short time, as I believe, "stamp out" contagious diseases, and on their reimportation "nip them in the bud."

I know there will be a great outcry against such stringent legislation raised by many, but mostly by the short-sighted. As you have well said on a kindred subject, resistance will be more likely to come from the "rich and selfish" than from the poor. It will be said, "I would pay any money or run any risk rather than my dear child should be taken from its home to a hospital." But surely such an objector can be made to see, if he does not care about the common weal, that the temporary removal of one member of a family from beneath the roof-tree, for more thorough and perhaps skilful treatment, may be for the good of that member, and must be for the good of all the other members of that family. At all events, if the "times are not ripe" for obtaining legislation which shall prevent the annual sacrifice of thousands on thousands of our people to the Moloch of contagious disease, there can be no doubt the time has arrived when the question of the desirability of such legislation should be well agitated with a view to forming the necessary "public opinion."

I am, Sir, your obedient servant,

Brighton, August 2nd, 1875. JOSEPH STEPHENS, M.D.

THE LEGAL VIEW OF INSANITY.

D. C. L.—The juries show more than common sense. They show that they recognise the truth that doctors know more of insanity than lawyers, and refuse to take the direction of the Judges.

Mr. Thomas Savill.—We heartily congratulate our young friend. The examination is very severe. We believe the percentage of "plucks" is about 65.

PRESCRIPTIONS *versus* DISPENSING.

To the Editor of THE LANCET.

SIR,—I have sometimes written to you in the interest of the profession as far as regards "a return" for their labours. I have met with a glaring instance to-day only of how the "workers" are robbed in the present day of their just rewards. A gentleman came into a chemist's where I happened to be, and asked the assistant to send him a copy of a prescription, as he wanted to send it into the country to a friend, he having previously borrowed it of another friend, and having returned it without copying it. This was consented to. I remarked afterwards to the assistant that such a proceeding appeared to me to be a system of wholesale defrauding of prescribers. He told me it was a constant practice, and that it was very difficult for them to refuse. Another chemist only the other day told me he always charged *5s.* for a copy of a prescription. Well may junior physicians and prescribers be starving after having invested their capital and worked with their brains if this kind of thing is allowed to go on. Yours very truly,

July 23rd, 1875. M.D.

A NEW INVENTION.

A NEW variety of cooking stove has recently been brought to London from New York, which for summer work commends itself to favourable attention. The apparatus consists essentially of an oven, placed by means of a sort of tripod over a large lamp, with several felt wicks burning kerosene oil. The essential peculiarity of this lamp is that the wicks are constantly surrounded with water, which keeps them cool, and prevents any charring at the burning point, so that no smoke or smell is produced. The ovens may be obtained of several sizes. Meats can be roasted or boiled, bread pies, &c. baked, and water heated. The entire first cost is about £3, and the oil consumed costs about one halfpenny an hour.

Mr. H. G. Dyer, (Ringwood.)—We quite concur in the opinion formed by our correspondent of the pamphlet. It might be well to forward a copy to the Secretary of the Society for the Suppression of Vice.

Lord Osborne is thanked for his communication.

THE DEATH UNDER CHLOROFORM AT QUARRY BANK.

To the Editor of THE LANCET.

SIR,—I enclose my notes of the case of Matilda Wyatt, of Quarry Bank, to which you allude in your impression of the 31st ult. I had fully intended sending them before, but was prevented by great pressure of professional work.

I most sincerely trust that, in the interests of fair play, which you always uphold, you will publish the details of this case. I send at the same time a slip from a local paper, which will afford you full details of the evidence given at the inquest.

I think I have cause to complain of the way in which the evidence of Mr. Ashmead was given, and I beg to draw your particular attention to the points on which he laid most stress.

1. That the cause of death was suffocation. "The face," he said, "was swollen and discoloured, and bloody froth was exuding from the mouth and nostrils."

2. That she was an unfit subject for chloroform. This he most certainly did say in the first instance, though he withdrew it on cross-examination.

3. That the lungs were consolidated and extensively diseased. This he also very much modified afterwards, saying there was *only part* of the lungs consolidated.

4. That the nature of the abdominal attack was peritonitis, and that an operation was useless.

One other point I would draw your attention to was this: that the coroner allowed him to name his own time for the post-mortem, giving directions to the police to let us (Mr. Pearse and myself) know the time, in order that we might be present. I received a telegram from Brierley Hill at 5 P.M., stating that the post-mortem would take place at 6 P.M. I accordingly, at great inconvenience, went to the house at 5.55 P.M., where I met Mr. Pearse. We both remained until 6.55 P.M., but Mr. Ashmead did not make his appearance. We were then obliged to leave, both having engagements; but in returning home I met Mr. Ashmead on his way to the house. This was at 7.25 P.M., and he offered no apology whatever for the delay in keeping his own appointment.

With these few remarks I will leave the case in your hands, feeling confident you will act with your usual justice and impartiality.

I am, Sir, yours truly,

Cradley Heath, Staffordshire, Aug. 3rd, 1875. HUGH R. KER.

P.S.—I am unable to conceive how, in a case of death "from suffocation and impeded circulation through the lungs," the cavities of the heart could be entirely empty; and how in ordinary peritonitis so large a quantity of pus would be contained in the cavity of the abdomen.

On May 26th last I was called to see Matilda Wyatt, of Quarry Bank. I found her suffering from double pleuro-pneumonia of considerable severity. The patient continued for about ten days in a very critical state, about which time the respirations and pulse began to become less frequent. She continued to improve, though the temperature was never greatly reduced, until the fourteenth day, when the temperature again considerably increased, and she complained of great tenderness over the left ovary. I found the menses had ceased at the commencement of her illness, and had not reappeared. Most uncontrollable sickness came on about this time, and the pain was at times intolerable, accompanied by rigors. The temperature reached on several occasions 105°. I have unfortunately, however, lost the notes I took at the time of the temperature, and am therefore obliged to speak from memory on this point. About fourteen days after this, or four weeks from the commencement of the attack, I first noticed a distinct hardness over the left ovary, which gradually increased in size and in distinctness of limits. A week after this, or five weeks after the attack, I examined the girl very carefully, externally and per vaginam. I found fair breathing over nearly the whole of the left lung, and also over the upper lobe of the right lung. There was, however, considerable dulness over both bases and the middle and lower lobe of right lung. On examining the abdomen, I found the left iliac fossa apparently occupied entirely by a large hard tumour, extending upwards almost on a level with the umbilicus. On percussion, I found dulness over the whole of the swelling; but the right side was distinctly resonant, giving me the impression that the intestines were pushed over entirely to that side. On examination per vaginam, I found the uterus pushed to the right side, and occupying a considerably lower position than normally. There was a distinct bulging of the left wall of the vagina, though no fluctuation could be discovered either here or externally. I found the examination, even when using the greatest care, caused the patient most exquisite pain. I then explained to the mother the nature of the case as well as it was possible, and told her that, as soon as the patient was able to bear it, I should have to give her chloroform, and pass in a needle to draw off the matter. At the end of another week I found distinct fluctuation, and, in conjunction with Mr. Pearse, I determined to draw off the matter by means of the aspirator. The opinion I had formed of the case was that there was a large abscess occupying a great part of the left side of the pelvis; that the inflammatory mischief had probably commenced about the broad ligament, and was traceable in its origin to the sudden cessation of the menstrual flux.

July 7th.—Chloroform being administered by Mr. Pearse, a further examination was instituted, which resulted in confirming us in our diagnosis. Up to this period nothing untoward had occurred beyond a little struggling at the commencement of giving chloroform. I then took the aspirator needle in my hand, and was just going to plunge it in, when violent sickness came on. We desisted until the sickness had ceased, and then, finding that she had become partially conscious, Mr. Pearse proceeded to put some more chloroform into the inhaler. Just at this moment a gurgling noise was heard distinctly by Mr. Pearse and myself, and we were under the impression at the time that the bowels had been moved. Mr. Pearse then determined to give her some more chloroform; but just as he was going to place the inhaler over the mouth she gave one gasp and died. We immediately resorted to artificial respiration, and gave brandy, but to no purpose.

On talking the matter over afterwards, I suggested to Mr. Pearse that the abscess had probably ruptured into the peritoneal cavity, and caused death by syncope, and that the gurgling noise which we had heard must have been the rupture and diffusion of the pus. We found that no fæces had been passed.

Autopsy.—By order of the coroner the body was opened on Saturday, July 10th, by Mr. Geo. Ashmead. On opening the chest, extensive pleuritic adhesions were found on the right and left side, principally towards the bases and over the middle lobes. There was a small abscess in the middle lobe of right lung, containing about half an ounce of pus. The middle and lower lobe of right lung and lower lobe of left lung were *partially* consolidated; air distinctly escaped in numerous bubbles on pressure, but no part of the lung was placed in water. The heart was entirely empty, and perfectly healthy. On opening the abdomen, a large abscess was discovered, occupying apparently the whole of the left iliac fossa, and extending upwards as far as the umbilicus. In this part the wall of the abscess appeared to have become continuous with the wall of the abdomen. The whole of the intestines were entirely pushed over to the right side of the abdomen, to the right of the median line. About one and a half to two inches below the umbilicus the sac had ruptured, and a considerable quantity of the pus had escaped into the peritoneal cavity.

Mr. Ashmead did not, in my presence, make any further examination as to the origin of the abscess or the amount of pus in the cavity. I should certainly think from appearances that there must have been at least three pints of pus in the cavity of the abscess.

The fact of the right side of the heart being empty precludes the idea of death from suffocation. The very plain evidence of a large sac containing pus having burst in the abdomen points to syncope as the cause of death, curiously coincident with the administration of chloroform.

"VERMOUTH."

A CORRESPONDENT asks for information as to the properties and physiological action of vermouth, and whether it is, as represented, "a perfect tonic."

Mr. Berry's cases shall appear in an early number.

Enquirer, (Walsall.)—Dr. Eustace Smith on Wasting Diseases of Childhood, Churchill's Diseases of Children, and Dr. Walshe on Diseases of the Heart.

THE NARCOTIC INFLUENCE OF RAILWAY TRAVELLING.

To the Editor of THE LANCET.

SIR,—In your interesting paragraph on the above (24th July) we have an accidental definition of sleep, "a loosening of the links which bind together the centres of sensation and consciousness." If we take this statement to be true as it stands, it follows that there can be sensation without consciousness and consciousness without sensation, and that it is the conjunction of sensation and consciousness which is the waking state. To my thinking the whole of these statements are wrong, and if they are, there cannot be such a thing as the phenomenon of narcotism by the vibrations of sound gently loosening those links, *&c.* Consciousness is very far from being proved to be absent from any being or thing, and certainly seems to be the necessary conjunct of sensation and motion. To these two—sensation and motion—belong an equilibrium necessitating a common centre. Whatever position, then, we hold consciousness to be in with regard to sensation, its position is the same with regard to motion. But we cannot imagine sensation to be existent as sensation without consciousness—i.e., without the consciousness of sensation, and ditto with motion. Now, the waking state cannot be sensation and consciousness in any conjunction, because in the waking state sensation and motion are equilibrating. But if we elaborate consciousness, or follow up its development, as it were, we shall note as the mark of the truly waking state consciousness of the *equilibrium* of sensation and motion. Whenever this consciousness fails, sleep takes place; the consciousness of sensation remains since sensation remains, and the consciousness of motion remains since motion remains, but the consciousness of their equilibrium is gone.

You say again that the narcotism is due to the vibrations of sound. This is partly true, but it is as much or more due to the so-called vibrations of light—i.e., due to the *fatigue* of the ear and eye. Of course fatigue of the ear alone, or of the eye alone, is sufficient to produce sleep, but in the case of railway travelling these are conjoined, the monotony of the sound being the cause of fatigue of the ear, and the rapidity with which objects travel into and out of sight the cause of fatigue of the eye. It is this fatigue which abolishes the consciousness of the reciprocity of sensation and motion, and fatigue is only a name to express the reaching of the natural limit of sensation and motion—i.e., the reaching of those natural bounds of being where sensation ceases to co-respond to motion, and motion to sensation, the turning-point, as it were, the pause, before they begin again to equilibrate.

I remain, Sir, yours truly,

Glasgow, August, 1875. J. S. NAIRNE.

Mr. A. Hamilton, (Edinburgh.)—The Report of Dr. Adams, headed "Cremation and Burial," will be found in the Sixth Report of the State Board of Health of Massachusetts for January, 1875, published by Wright and Potter, of Boston, U.S.

A Student.—Write to Mr. Trimmer, College of Surgeons.

Mr. Lloyd Owen, (Birmingham.)—The article shall be inserted.

MEDICAL OFFICERS OF THE INDIAN AND COLONIAL SERVICES AND REGISTRATION.

To the Editor of THE LANCET.

SIR,—I have been waiting to see whether any of your correspondents would notice my statement that all medical officers of the Indian army and colonial services are not obliged to register. I do not find the names of several of these officers whom I know in the Medical Register, although the Medical Act appears most certainly to apply to them.

Your obedient servant,

July 24th, 1875. REGISTER.

THE USE OF THE MOSQUITO.

DR. S. W. FRANCIS (U.S.A.) thinks he has discovered the *cui bono* in the economy of nature of this pest of warm climates. He believes the mosquito was created for the purpose of driving man from malarial districts; for, in his opinion, "no region where the chills and fever prevail can be free from this little animal. Now if man will not go after the warning is given in humming accents, then the mosquito injects hypodermically a little liquid which answers two purposes—first, to render the blood thin enough to be drawn up through its tube; and, secondly, in order to inject that which possesses the principles of quinine."

Mr. John Bligh, (King's Lynn.)—Blatchley, of 362, Oxford-street.

EMBOLIC GANGRENE.

To the Editor of THE LANCET.

SIR,—The following case may possibly prove of interest to some of your readers.

Miss L——, aged seventy-three, was seized on May 27th, 1875, with a sharp attack of bronchitis, attended with the ordinary symptoms and physical signs. Up to this date she had enjoyed tolerable health, never having had any serious illness, though occasionally she had suffered from rheumatic pains. There was distinct evidence, however, of valvular disease of the heart. For a week she suffered considerably from cough and dyspnœa, her sleeplessness being very distressing. Her pulse, too, was unsteady, varying a good deal both in volume and rhythm, and being at times feeble and intermittent, so that her condition seemed rather a perilous one. On June 4th, however, she began to improve, and on the 7th convalescence had so far set in that she was able to sit up in bed and read the newspaper. On the morning of the 8th she expressed herself better in every way, but complained of having had an unusual feeling of drowsiness, which lasted for a few hours the previous evening. On the night of the 8th I received an urgent message to see her at once, as "she had just had a paralytic stroke." I found her complaining of intense pain in the right arm, running down from the elbow to the fingers, and accompanied with a sensation of "pins and needles." The hand and arm, she said, felt "cold, numb, and powerless." I found she could with difficulty raise it to a level with the shoulder, but no higher. There was a good deal of venous congestion about the fingers, and they felt perceptibly colder than those of the opposite side. There had been no loss of consciousness, no pain in the head, nor giddiness. There was no existing paralysis of the right leg, right side of face, or tongue, nor any change of sensation in these parts. The right radial artery could not be felt beating, nor yet the brachial, but the axillary pulsated forcibly. Judging from the signs and symptoms that embolism of the brachial artery had taken place, due probably to the escape of some valvular deposit into the course of the circulation, I had the hand and arm wrapped in a layer of cotton-wool, ordering an opiate to relieve the pain, and a free supply of nourishment and stimulants. For the next three days there was great tenderness over the course of the brachial, and the pain in the arm continued severe, causing the patient to be very restless. By this time she had regained the power of moving the arm freely; but the fingers showed distinct signs of gangrene, which subsequently extended upwards until, at the end of the fourth week, a well-marked line of demarcation had formed at the junction of the upper and middle thirds of the forearm. Her appetite during this time was satisfactory, and her general health continued good; the treatment consisting chiefly of ammonia and bark, with an opium and chloral draught at bedtime, and plenty of beef-tea, brandy, arrowroot, &c. On July 14th dyspnœa came on, attended with sickness and failure of appetite, and on the following day she died, apparently from asthenia. No post-mortem examination was obtained.

Although embolism in a case like this may be a pure accident, which might happen to the patient under any circumstances, I am inclined to think that the extra work thrown on the heart during the previous acute attack of bronchitis would strongly predispose to its occurrence. The unusual feeling of drowsiness complained of previous to the arrest of circulation in the arm may have been significant of a similar state of things in the brain—viz., embolism of some of the cerebral vessels. In regard to diagnosis, hemiplegia in a patient of the age of seventy-three would, of course, be a probable event; but I do not think a hemiplegic limb is ever pulseless at the time of the seizure, though its circulation frequently becomes weaker than that of its fellow of the opposite side.

The case seems interesting to me—first, as occurring in a patient of this age as a sequel of acute bronchitis; and secondly, because of the sudden arrest of circulation in the limb, with rapid supervention of gangrene, and yet absence of constitutional symptoms, and postponement of death till the beginning of the sixth week.

Perhaps some of your readers can tell me if amputation has ever been done successfully in such a case. I am, Sir, yours truly,

Deal, July 26th, 1875. R. F. QUINTON.

V.—The name of a pupil cannot be entered in the Students' Register before he is entered at a recognised medical school or hospital, unless he produces a certificate from the Secretary of the Royal College of Surgeons of England to the effect that his pupilage is recognised by that College as the commencement of his professional studies.

Mr. J. D. Griffith, (Chesham.)—We do not publish a list of vacant appointments. Our correspondent will find all the announcements in our advertising columns.

Sir Duncan Gibb.—Other arrangements shall be made.

Mr. Charles M. Clarke.—We think the letter rather too strong for insertion.

A COUNTY COURT VERDICT.

To the Editor of THE LANCET.

SIR,—I was called to attend Mrs. N—— in her confinement at seven o'clock in the morning. I remained two hours. During that time she made very little progress. As it was a case of natural labour, and all was right, I thought I might safely leave her for half an hour, as I lived within three minutes' walk from the house. When I returned the child was born. I tied the cord, removed the placenta, stopped two hours, as she threatened to have hæmorrhage, and attended nine days. At the end of that period she paid half the fee, promising the rest in a few days. I summoned for the remainder. The Judge nonsuited me because I was not there when the child was born. Yours &c.,

London, July, 1875. A. W.

AN ELECTRIC FISH.

AMONG the specimens lately added by the Zoological Society to their living collection in the Regent's-park is a small fresh-water fish belonging to the family of siluroids, and remarkable for possessing an electric organ, like the better-known *Gymnotus*, or electric eel. When touched by the fingers on the lower side of the body, it gives forth a slight, but very perceptible, electric shock. The fish is from one of the rivers of West Africa, and is known to naturalists as the *Malapterurus beninensis*, from its having been originally discovered in the River Beni. A closely allied species—the *Malapterurus electricus*—inhabits the Nile, and has been long known for its electrifying properties. It is believed that no example of any of these singular fishes has been previously brought alive to this country.

Mr. A. H. Churchill.—The County Court would be the proper Court for trying such a question, if it is worth taking into a Court, which we scarcely think the case. It is not the less shabby on the part of the patient to refuse to pay the fee.

Dr. Henry Blanc, (Poona, Bombay Presidency.)—The communication shall appear soon.

Mr. Broadhurst, (Liscard.)—Thanks.

IDIOPATHIC ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—A few weeks ago I stumbled across a couple of rather queer cases of idiopathic erysipelas. I have never seen anything to resemble them. I cannot find any reference to such cases in books; and as two or three medical practitioners of some experience have never met with such, I hope you will allow me to submit them to the kind notice of the readers of your valuable journal, because there is always a chance for a young observer to find a mare's nest. Their character was so decided, their symptoms so coincident in period and relapse, that I have felt justified in thinking them examples of a relapsing erysipelas.

CASE 1.—I was called on June 6th to see Harriet B——, aged ten. I found that she had had rigors; temperature 103°; had vomited; tongue thickly furred; refusing food; constipated; pulse 140, of moderate volume; face much swelled; eyes closed; large blebs forming on face; delirium at night. The next day the face was more swelled; contents of vesicles bloody; temperature 104°; pulse 140, not quite so good in volume; much delirium at night. On the 9th the face was less swelled; vesicles not so tense; catarrh of stomach and mouth decreasing; temperature 102°; pulse 140, firmer. On the 12th the swelling had almost disappeared; eyes open; conjunctivæ jaundiced; black scabs on cheeks; temperature 100°; pulse 100. 13th: Appetite returning; temperature 98°; pulse 94. Convalescence, seven days.—21st: Found her with relapse of all the symptoms, which continued to hang about for some days, at the end of which I had her removed to a new locality, and she made a quick recovery. I therefore concluded that this was a case of septicæmia, dependent upon her residence in a house the drainage of which I found upon inquiry to be bad. No other cases in this district.

CASE 2.—On June 8th I was called to Ellen H——, aged three years. I found erysipelas commencing upon the face; temperature 102°. On the 10th the disease had spread to arms, chest, and abdomen, and on the 12th over the whole body. On the 13th it began to subside from the head and face.—16th: Slight thickening of skin only remains in places; the temperature is almost normal, the child taking food well; conjunctivæ jaundiced. Convalescence, seven days.—19th: Abscesses had formed very rapidly over the acromion and external condyle of humerus and the base of the neck on the left side.—20th: I made an incision into the one over the condyle. The abscesses that remained were rapidly drying up. On the 24th the child had a relapse; the disease again extended to the extremities, and, notwithstanding that stimulants and plenty of milk were afforded, she sank on July 12th, exhausted. No more cases in this district.

Yours truly,

CLELAND LAMMIMAN, L.R.C.P.I.,

July, 1875. House-Surgeon to Tunbridge Wells Hospital.

Non finis determinat probitatem actis.—The matter is being fully investigated by a Commission at the present time. Therefore we think it best not to insert our correspondent's letter.

Mr. H. G. Trestrail's letter shall receive consideration.

Tyro.—At the Army Medical Department, Whitehall-yard.

THE NEW FEVER DEPARTMENT OF THE SUSSEX COUNTY HOSPITAL.

To the Editor of THE LANCET.

SIR,—I read last evening with much surprise a letter in your journal from Dr. Taaffe, of Brighton, making very free use of my name, and accusing me of "indirectly (a very indefinite expression) misrepresenting" him, and particularly of asserting that an article which appeared in THE LANCET some weeks since upon the above subject was "inspired" by him, Dr. Taaffe. I beg to state most distinctly that I never for a moment thought or said anything of the kind. It never occurred to me that Dr. Taaffe had sufficient influence with the Editor of THE LANCET to procure the writing of any such article. In fact, I never mentioned Dr. Taaffe's name either in my letter to you (which appears to have given him such great offence) or in any that I have sent to the Brighton papers.

As to the remainder of Dr. Taaffe's remarks, as the Brighton Town Council have decided by a very large majority that the proposed alterations at the Sussex County Hospital are unobjectionable, it does not appear to me necessary or desirable to prolong the discussion.

I am, Sir, your obedient servant,

WILLIAM KEBBELL, M.D.,

Brighton, July 31st, 1875. Physician to the Sussex County Hospital.

C. M.—Our correspondent's question has been overlooked. The firm can recover for medical attendance and medicines by virtue of the qualification mentioned.

Dr. C. Faber.—The paper may be forwarded to our Office. We shall be most happy to receive it.

Mr. Boridan.—Search shall be made for the article.

"THE ODD SHILLING."

To the Editor of THE LANCET.

SIR,—Hitherto the correspondence respecting "the odd shilling" has been solely on one side of the question. I think there is something to be said on the other. Were this world a Utopia, the five per cent. state of affairs could not exist; but, as matters are, I contend that the debateable shilling smooths the practitioner's path immensely. Nurses have many opportunities for saving us a world of trouble. They might often send for the accoucheur long ere his aid is really required, and rouse him from his slumbers about two A.M., when they could, with a little forethought and care for the doctor's rest, permit him to remain undisturbed until a few hours have elapsed. As a young practitioner, I have generally found this the case; and were the nurses to give me unnecessary trouble, they know full well they would not receive their shillings. Of course, were nurses immaculate, their little fees would not affect their conduct; but for my own part I never regret this custom, as I am confident it secures the full alliance of those who reign paramount in the lying-in room, and this latter fact the oldest accoucheur cannot gainsay.

As regards vaccination, I always make a charge of half-a-crown for one guinea, five shillings for two and three guineas, and half a guinea for five guinea cases—a scale of charges that I find works well.

I am, Sir, your obedient servant,

London, July 24th, 1875. A. H. W. A.

ANOTHER FRAUD.

To the Editor of THE LANCET.

SIR,—I clipped the following advertisement from one of to-day's papers:—

"EXAMINATION.—Wanted, a gentleman to pass a simple examination in general education; will be well paid.—Medicus, Post-office."

The rogue or fool in this instance seems to have avoided the circumlocution that Mr. Gould's fool or rogue thought it primarily necessary to affect. If offers of this open nature can find ready insertion in the public prints, I fail to see why gentlemen in need of burglars, forgers, cut-throats, and so forth, should not address their peculiar public through similar channels.

Yours obediently,

July 26th, 1875. GRAY'S INN.

ERRATA.—In Mr. Alderson's letter on Puerperal Fever, published in our last, p. 183, ninth line from the bottom of first column, for "low typhoid," read "pneumonia of typhoid type." And in the eighth line of last paragraph of the letter, for "Mr.," read "Dr."—In the obituary of Dr. Officer, p. 183, for "Dr. James," read "Dr. James Laing."—The fifteenth name in the list, published last week, of gentlemen who passed the examination for the Membership of the College of Surgeons, should have been printed "Colborne," not "Colborn."

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. H. Smith, London; Dr. Henry Bennet, London; Mr. George Pollock, London; Mr. C. Hawkins, London; Mr. Brudenell Carter, London; Dr. Blane, Bombay; Sir Duncan Gibb, London; Mr. Granville, London; Dr. Owen, Birmingham; Mr. Teevan, London; Mr. Anderson, London; Mr. Berry, Wigan; Mr. Thomas Savill, London; Mr. Condon; Mr. Street, London; Mr. Collins, Notting-hill; Mr. Perry, Melksham; Dr. Dickinson, Stalybridge; Mr. Bligh, King's Lynn; Mr. Pateman; Dr. Mercer, Beverley; Mr. W. Parker, Bath; Mr. P. Swales, Sheerness; Mr. Cannon, Penrith; Mr. Trestrail, Aldershot; Mr. Griffith, Chesham; Dr. Lowe, Lincoln; Dr. Leake, West Kensington; Dr. Gordon, Salisbury; Mr. Broadhurst, Liscard; Mr. Haward, London; Mr. Nairne, Glasgow; Mr. Fox, Warrington; Mr. Ker, Brierley Hill; Mr. H. Dyer, Ringwood; Dr. Harding, Whittlesea; Dr. Carless, Devizes; Mr. Barker, London; Dr. Richardson, Rhayader; Mr. Wray, London; Mr. J. Hall, London; Mr. A. Hamilton, Edinburgh; Mr. Hayward; Dr. Alderson, Hammersmith; Dr. Stephens, Brighton; Mr. H. Colborne, London; Dr. Lee, London; Mr. Churchill, Liverpool; Mr. Blyth, Barnstaple; Dr. O'Neill, Dublin; Dr. Thompson, Leamington; Dr. Houseman, London; Mr. W. M. Farmer, Cape Town; Dr. Wadsworth, London; Dr. Kebbell, Brighton; Wormwood; A. C. S.; Non finis determinat probitatem actûs; V., London; A Medical Officer; P.R.C.S., Cheltenham; Antipodes; Fair Play; Physicist; Enquirer; R. H., Waltham; B. A., Stockton; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Stannard, Croydon; Mr. Utting, Castleton; Mr. Wingot, Torquay; Mr. Fairies, Montgomery; Messrs. Smith & Son, Birmingham; Mr. Owen, Beaumaris; Dr. Horner, Paris; Mr. Fox, Manchester; Mr. Suffield, Hednesford; Mr. Leggatt, Eastry; Mr. Adams, London; Mr. C. H. Smith, Liverpool; Mr. Wilson, Whitehaven; Mr. Roberts, London; Mr. Mouritz, Runcorn; Mr. Mason, Burton-on-Trent; Mr. Tanner, Worcester; Mr. Cartwright, Leintwardine; Mr. Fitch, Market Bosworth; Mr. Godfrey, Northampton; Mr. Roper, Croydon; Dr. Watkins, Des Moines, Iowa; Mr. Greenall, Manchester; Mr. Harrison, London; B. J., Newcastle; M. A., Bicester; R. H., Shaftesbury; C. F. S.; Oxalis; Medicus, Halifax; Locum Tenens; W. H. P., London; F. P., Oldham; Dupa, London; S. B., London; M. L., London; J. W. P., London; J., London; Zeta; M.R.C.S., London; De B.; R. N.; M.; J. B., Lydd; M.D., London.

Cook's Excursionist and Advertiser, Spectator, Graphic, Broad Arrow, Leeds Mercury, Liverpool Daily Post, Examiner, Academy, Pharmaceutical Journal, Welshman, Women and Work, Fairplay, Manchester Guardian, Gleaner (Kingston, Jamaica), *Pocket Edition of the Gleaner* (Kingston, Jamaica), *European Review, Cork Constitution, Sanitary Review, Shield, Solicitors' Journal, Derbyshire Times, Land and Water, Huddersfield Chronicle, Surrey Advertiser*, and *East London Observer* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, AUG. 5TH, 1875.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
July 30	30·13	W.	59	65	107	76	58	...	Overcast
,, 31	30·15	N.	51	56	102	70	54	...	Overcast
Aug. 1	30·18	N.	52	57	103	69	52	...	Cloudy
,, 2	30·25	N.E.	51	54	111	73	51	...	Overcast
,, 3	30·12	E.	55	59	99	71	53	...	Cloudy
,, 4	30·13	N.E.	54	58	104	69	52	...	Cloudy
,, 5	30·05	W.	53	57	...	...	50	...	Cloudy

Medical Diary for the ensuing Week.

Monday, Aug. 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 10.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Aug. 11.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Aug. 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Aug. 13.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Aug. 14.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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